



COMPANY PROFILE 2020

الـــور دة الـــشــام لتركيب الهواد الحزلة ش. ذ. م. م ALWARDA ALSHAM Waterproofing and Insulation LLC

متحرك :971549986395+ 971551021496 ص.ب: 235165 ص.ب: 235165 دبي ـ أ.ع.م

Mob: +971 551021 496, +971 54 9986 395 Tel: 04-2242452, P.O. Box: 235165 Dubai UAE

E-mai: info@alwardame.com Web: ww

Web: www.alwardame.com





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COMPANY POLICY

The company is committed to provide a quality service to its clients which accurately interprets their requirement and satisfies their expectations in an innovative, economic and efficient manner.

Phone : +971 55 1021 496, +971 54 9986395, 042242452 Email: info@alwardame.com



CORPORATE VISION AND MISSION

Motto: Growth through Customer Loyalty

Corporate Mission: To achieve profitability through customer satisfaction and loyalty by ingraining our superior technical resources at management level down to the worker level, by empowering each employee through continuous training and feedback, and fostering in them a sense of ownership in the business

Corporate Vision: To become the leading and most recognized brand in the insulation industry for reliability and technical excellence, by achieving and maintaining high levels of customer satisfaction at each contact and at every level

Mob: +971 55 1021496 / +971 54 9986395, Tel.: 04-2242452, P.O.Box: 235165, Dubai, UAE E-mail : info@alwardame.com, Web : www.alwardame.com





إكسبو EXPO 2020 . دبس، الإمــــارات العربيــة المتحــدة

دبي، الإمـــــارات العربيــه المتحـــده DUBAI, UNITED ARAB EMIRATES

Why Choose Us?

Because we care ...

We goined knowledge through years of experience and and we deliver our best by giving every individual a special training so they give you best services.

Waterproofing Methods

Water is the most destructive weathering element of concrete shuctures; water continues to damage or completely destroy more buildings and structures than satural disasters. Waterproofing techniques preserve a structure& megorip and usefulness through on understanding of natural forces and their offect during life cycle.

Waterproofing

is the formation of an internal or esternal membrane which is designed to prevent water from entering or escaping the concrete. Internal membranes are created with waterproofing administries. External membranes are applied to the autieous of the concreto i nearly always on the positive side.

External membranes are divided into two sub-ostagories: fluid-applied membranes and sheet applied membranes.

COMBO ROOF SYSTEM

- Combo Roof system is a comprehensive system comprising of waterproofing, thermal insulation and finishing for the roof. This unique system is a technically advanced fast curing.
- This system provides a manufacturer's Guarantee of 25 years against any leakage. The system meets all latest thermal insulation standards and regulations in UAE and is accepted by all major property developers, consultants and contractors.

Introduction

Introduction

ALWARDA ALSHAM Waterproofing and Insulation LLC, is a prominent waterproofing solution provider. The guiding philosophy behind the existence of the company is to make available to our customer product and services of commendable with strict adherence to time scheduled and technical specifications, at prices that offer better value for money.

Who We Are?

A highly professional team of engineers and managers complimented by a skilled and experienced labor force ensures that high technical standards are maintained and that time schedules are adhered to in the execution of all our projects. It is therefore no surprise that's our customers have a high regard for our work.



Facilities and CapabilityFacilities and Capability

At ALWARDA ALSHAM Waterproofing and Insulation LLC, we boast an impressive set of inhouse facilities that allow us to take almost every project from concept through to completion without the hindrance of requiring third party production that can slow the process down. Coupled with experienced staff and specially designed proprietary workflow procedure, we are uniquely positioned to get the job done right, from start to end.

Guarantee

Cover all the applied system regarding it's workmanship and finishing alone with the manufacture's manual guarantee as per the Company profile and their mentioned specification under their description based on experience, accelerated ageing, tests and quality service.



Technical Support

We are supported by well experienced engineers, designers and professional application team to execute projects of the highest standards. In addition, staff is available to visit site to give advice on particularly difficult or in unusual situations, where appropriates specifications are prepared to assist in the correct solution of the problems.



CERTIFICATE

Certificate no. 15842



ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC.

OFFICE# 437, NASIRIYA LOOTAH BLDG., DAMASCUS ST., AL QUSAIS IND. AREA 1, PO BOX 235165, DUBAI, UAE.

QS ZÜRICH AG certifies that the management system of the above mentioned company has been evaluated and meets the requirements established by the following rules:

ISO 9001: 2015

The management system includes:

TURNKEY INSULATION CONTRACTING SOLUTIONS

IAF Code 29, 34

Certificates will be renewed every year along 3 years. The certificates which exceed the expiration date are not valid. During the period of validity of this certificate, the management system of the company must always comply with the requirements of the certified standards.

For updated amendments within the scope of certification of the present certificate, please refer to http://www.guality-service.ch/



Audit date: Date of issue: Expiration date: Recertification due date:



21.11.2019 09.12.2019 08.12.2020 08.12.2022

QS ZÜRICH AG P.O. Box 6335 CH-8050 Zürich info@guality-service.ch





a

Management





CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality hereby attests that the product(s)

In-situ Formed Sprayed PUR/PIR Thermal Insulation

(Details as per the attached Scope of Certification)

manufactured by:

ALWARDA ALSHAM WATERPROOFING AND INSULATION L. L.C.

Room no. 437, AL NASIRIYA BUILDING, AL QUSAIS3 DUBAI UAE

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

BS EN 14315-1: 2013

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-mentioned product(s).



for / ENGR. AMIN AHMED AMIN Director, Dubai Central Laboratory Department Dubai Municipality



Certificate No: CL19020714 Valid Until: 29/10/2020



Current Issue Date: 30/10/2019 Original Issue Date: 30/10/2019

The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate. This Certificate is an electronic document subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.



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DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL19020714

Certificate Issued To : Alwarda Alsham Waterproofing And Insulation L. L.C , Room No. 437, Al Nasiriya Building, Al Qusais3 , Dubai UAE .

Applicable Standard Specification : BS EN 14315-1:2013 – Thermal Insulating Product for Buildings In-situ Formed Sprayed Rigid Polyurethane (PUR) and PIR Foam Products .

Applicable Specific Rules: RD-DP21-2187 (IC) - Specific Rules for Certification of In Situ Formed Sprayed Polyurethane and Polyisocyanurate Foam Products (As Per BS EN 14315-1:2013) Through Factory Assessment.

S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
	In-Situ Formed Sprayed Polyurethane and Polyisocyanurate Foam <i>"CFC Free" *</i>	Alwarda Alsham Waterproofing & Insulation LLC Combo Roofing System	Min. Density : 40 kg/m ³ Thickness: 35-150 mm k-value: 0.024 W/(K•m)* (max) @ 35°C & 60% RH With a min. Compressive. Strength of 100 kPa Dimensional Stability (DS(TH)2 Short term water absorption by partial immersion: 0.06 kg/m2 (max) Product Code: PU EN14315-1- DS(TH)2-
			CS(10/Y)100-MU(25)

NOTE 1: This document forms part of the Certificate of Product Conformity bearing the same Certificate Number.

NOTE 2: The above product shall bear the DCL Conformity Mark (applied on each product or on the packaging).

NOTE3: *CFC Free as per declaration from the company, in accordance with the Dubai Green Building Regulations and Specification.

:30/10/2019 Original Issue Date Current Issue Date :30/10/2019 Valid Until :29/10/2020



ARIF HUSAIN AL MARZOOQI Products Conformity Assessment Section Manager Dubai Central Laboratory Department



DM-DCI D-F-IC-2032 R9



APPROVED APPLICATOR CERTIFICATES

Technical Supplies & Services Co. L.L.C. (Paid up Capital AED 100,000,000)



شركة التوريد والخدمات الفذية (ف.م.م.) (رأس المال المدفوع ۲۰۰، ۱۰۰ درهم)

Date : 09/09/2019

Ref no# : NS/1000/19

Whomever It May concern

We Herby confirm that M/s Alwarda Alsham Waterprofing & Insulation LLC is authorized applicator for HP-SP-3040 Spray Chemicals.



Manufacturer of Steel Structures | Cladding & Composite Panels | Light Weight Concrete Panels | Doors & Windows | Cold Stores | Refrigerated Vehicle Bodies Factory Manufactured Houses | Specialized Shelters | Merchandising Refrigerators | SS Kitchen Equipment | Industrial Racking Systems Metal Sheds Idustrial Refrigeration Services | Hot DIP Galvanizing Services

Head Office: Industrial Area 10 - Sharjah - UAE, P.O. Bow 1818 [Dubal Branch: Dubal Investment Park - UAE, P.O. Box: 77031 April Dubal Error A. P.O. Box: 49 UL Tel: +9%16 534 1 344, Fax: +9716 534 1686 Tel: +9714 8850474, Fax: +971 4 8850343, Email: Info@tsscuae.com, Website







TO WHOM SO EVER IT MAY CONCERN

This is to certify that **M/s.** AL WARDA ALSHAM waterproofing and Insulation LLC **Dubai**, **U.A.E.** Is our authorized applicator for our products.

Thanks and best regards,

VALIDITY: FROM: 09.09.2019 TO 08.09.2020

For DUBAI ADHESIVE MATERIAL FACTORY LLC.



تليفون: ٢٥٣٤٩٧٩ ٦ ٢٧١٦ +، فاكس: ٩٩/٩٩ ٦ ٢٧١٦ +، ص.ب: ١٤٦٣، الشارقة - الإمارات العربية المتحدة Tel.: +971 6 5349708, Fax: +971 6 5349709, P.O. Box: 1463, Sharjah - United Arab Emirates E-Mail: dubaiamf@gmail.com, dubaiamf@emirates.net.ae, www.dubaiadhesive.com f dubaiadhesives



APPROVED APPLICATOR CERTIFICATE

This certifies that

AL WARDA AL SHAM WATERPROOFING AND INSULATION LLC

have been registered as an

Approved Applicator and demonstrated competence in applying BASF Construction Chemicals Products

Valid from:

31st December, 2019 Valid until: 30th June 2020 (subject to periodic site

inspections)

For and on behalf of

BASF Construction Chemicals UAE LLC

General Manager

Julian Pritchard Head of Market Management Middle East/





SHERIDAN BUILDING MATERIALS TRADING LLC



Voice : + 971 4 2386293 Fax : + 971 4 2386294 P.O.BOX: 65034 DUBAI, United Arab Emirates Email: sales@sheridanuae.com Website: www.sheridanuae.com شيريدان لتجارة مواد البناء ش ذمم م

الهاتف : ١٦٦٧٩٠٠٠ (٩٧١ + / ٣١١٦٢٥ الفاكس : ١٦٥٣١١٦١٨ + ص ب : ٢٥٠٣٤ دبي : ١.ع.م

Date : 1° Ref No : SE

: 11-09-2019 : SBMTF/AWM/110919

To Whom It May Concern

This Letter is to certify that ALWARDA ALSHAM WATERPROOFING & INSULATION L.L.C is an approved applicator for the product supplied by SHERIDAN BUILDING MATERIALS TRADING LLC.

The product includes.

Bituminous Membrane – Neoflex A4180/ Neoflex S4180 Bituminous Protection Board - Neoboard Water Base Primer – Neoprime WB Solvent Base Primer- Neoprime SB Rubberized Coatinig –Neocoat RBE Geotextiles - Geotec Series Bituminous / Compressible Filler Board- Neo-cell Backing Rod - Neo Backer Rod Polyurethane Sealant –Neoflex Pu 25-LM Polyurethane Coating-Neoseal Pu Extruded Polystyrene – Roof Ban

Should you have any questions or clarifications, please don't hesitate to contact the undersigned.

You're faithfully,





CERTIFICATE OF APPLICATOR'S QUALIFICATION For Installation of Waterproofing Material

This is to certify that the following company who's address below: AL WARDA ALSHAM WATERPROOFING AND INSULATION L.L.C P.O. BOX: 235165, DUBAI U.A.E. Are approved applicator's of SOPREMA's waterproofing material and systems in the United Arab Emirates

This certificate is valid for 1 year as of issuance date below

Medhat Daniel Technical Director



TEL: +971 4 609 1661, FAX: +971 4 609 1662

WWW.SOPREMA.AE

January 1, 2019

Date



Terraco Training Certificate

We TERRACO UAE LTD, P.O. Box: 10218, Dubai, U.A.E, herewith confirm that the applicators of

M/s. Al Warda Al sham Waterproofing and Insulation LLC

P.O.Box: 235165, Dubai, UAE are trained on **TERRACO Weathercoat GP** under **TERRACO** Supervision.

Project Ref: DIFC ICD - Brookfield Place, Dubai.



Lavannya Radhu Kumar Sales Manager





Date 2310 September 2019

This certificate is issued in good trust and based on appreators experience with our products and on the training provided, without any obligation on the part of Terraco UAE Ltd.

Ref: T/SO/Dxb/CertApp-4943-19 This certificate is valid only for one year from the date of issue.



Ref. No.: HPIL/DXB/L285/19/KM 25th DECEMBER 2019

APPLICATOR CERTIFICATE

This is to cerify **M/S Al Warda Al Sham Waterproofing And Insulation LLC P.O BOX -235165 Dubai Arab Emirates,** is a proficient company specialized in Waterproofing Membranes & Bitumen Coatings.

Henkel Polybit Industries Ltd Recommends, M/S Al Warda Al Sham Waterproofing and Insulation LLC as an approved applicator for executing quality waterproofing jobs using our products.

This Certficate is valid for one year from date of issue.

For Henkel Polybit Industries Ltd.,





Henkel Polybit Industries Ud. PO Box: 91479, Abu Dhabi, UAE Phone: +971 (2) 557 5806, Fax: +971 (2) 557 5802 polybitabudhabi@henkel.com, www.henkelpolybit.com هنكل بولى بت للصناعات المحدودة ص.ب: 91470، أبو ظبى، الإمارات العربية المتحدة هانف: 125575802، للكس: 97125575802 When you have to do something you have to be authorized , right ?. Look how we are.

Licences





Reserve	and the second	ية	رخصة تجار	W-D-M-M-ML/	1 - N - N
N / N		Comm	ercial Licer	<u>15e</u>	
			100 C 100	License Details /	تقاصيل الرخصة
License No.			832098		رقم الرخصة
			ش.ذ.م.م	الوردة الشام لتركيب المواد العازلة ث	اسم الشركة
Company Name	ALWARDA ALSHAM	WATERPROOFING AND	DINSULATION LLC		
			ዮ.ዮ-	الوردة الشام لتركيب المواد العازلة ش.ذ	الإسم التجارى
Trade Name	ALWARDA ALSHAM WA	ATERPROOFING AND INSU	JLATION LLC		
Legal Type	Limited Liability Compan	y(LLC)		ذات مسئولية محدودة	الشكل القانونى
Expiry Date	08/04/2021	تاريخ الإنتهاء	Issue Date	e 09/04/2019	تاريخ الإصدار
D&B D-U-N-S ® No	• 0	الرقم العالمي	Main Lice	nse No. 832098	رقم الرخصة الام
Register No.	1408553	رقم السجل التجاري	DCCI No.	319527	عضوية الغرفة
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الحصمي / Share	الصفة / Role	Nationality /	الجنسية /	الإسم / Name	رقم الشخص/.No
	مدیر / Manager	Pakistan /	باكستان	قيصر محمود محمد اشرف	675833
			QASAR ME	HMOOD MUHAMMAD ASHRAF	
			1250	للدية / License Activities	نشاط الرخصة التر
Insulation Contr	acting			ة في الأبنية والمنشآت المدنية	تركيب المواد العازل
				Ac	العنوان / dress
Phone No		تليفون	P.O. Box		سندوق بريد
Fax No		فاكس	Parcel ID	242-288	رقم القطعة
Mobile No	971-55-1021496	هاتف متحرك	i - القصيص	ڪ - حسين ناصر را <i>ش</i> د ماجد لوتاه - ديرة	مكتب رقم 437 - ملا
					الصناعية الأولى
				Rema	الملاحظات / orks



Now you can renew your trade license by sending a text message (SMS). Send your trade license number to 6969 (Du/ Etisalat) to receive payment

ونثيقة إلكترونية معتمدة وصلارة بدون توقيع من دائرة التنمية الاقتصادية إلمراجعة صحة البيلنات الواردة في الرخصة برجاء زيارة الموقع www.dubaided.gov.ae Approved electronic document issued without signature by the Department of Economic Development. To verify the license kindly visit www.dubaided.gov.ae

غــرف_ة دبـي UBAI CHAMBER

شهادة تسجيل العضوية Membership Certificate

License no.	832098	832098	رقم الرخصة
Membership no	. 319527	319527	رقم العضوية
Registration no	• 1408553	1408553	رقم السجل التجاري
Trade Name	ALWARDA ALSHAM WATERPROOFING AND INSULATION L.L.C	الوردة الشام لتركيب المواد العازلة ش.ذ.م.م	الاسم التجاري
Legal Status	Limited Liability Company(LLC)	ذات مسئولية محدودة	الشكل القانوني
Activity	Insulation Contracting	تركيب المواد العازلة في الأبنية والمنشآت المدنية	نوع النشاط
Member Since	09/04/2019	09/04/2019	تاريخ الإنتساب
Date of Issue	09/04/2019	09/04/2019	تاريخ الإصدار
Expiry Date	08/04/2021	08/04/2020	تاريخ الإنتهاء

الملاحظات

تعتبر هذه الشمادة لاغية في حال أي كشط أو تعديل عليما دون اعتماد ذلك من الغرفة

للتأكد من صحة بيانات الشهادة يرجى الرجوع إلى موقع الغرفة http://www.dubaichamber.ae/verify

Remarks

This certificate shall be invalid incase of any alteration without chamber's authorization

For online verification of this Certificate, please visit our website http://www.dubaichamber.ae/verify

غرفة تجارة ومناعة دبي Dubai Chamber of Commerce & Industry

P.O. Box 1457 - Dubai, U.A.E. | Tel (Within UAE) 800 CHAMBER (800 2426237) | Tel (Outside UAE) (+971) 4 2280000 ها تف Fax (+971) 4 2211646 فاکس customercare@dubaichamber.ae | www.dubaichamber.ae



ORGANIZATION CHART



APPROVALS









Record	d Reference: E157_SDS_0	041		T	Date: 22 Jun	e 2020
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	S	hop Dr	rawing \$	Submittal Red	quest	Sec. Inter
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leview	red By & Signature: (The En	gineer)		Approved By &	Signature: (The	Engineer)
Receiv	ed By (The Contractor)			Date Alanang	07-Juex-2020	
Distrib	ution:					
			Indel		Contracto	vr.



V.

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SUBMITTAL Project: G+1+1R Residential Villa at Al Quoz 1st.- Plot no : 3541830 Client: Zainnab Abdulmuhsin Mahdi Abdulla Alnajiar **Consultant:** Al Jethoor Engineering Consultant Contractor: Dubai Star Construction & General Maintenance Civil Sample Board Lift Specification TYPE Survey Plumbing & Drainage HVAC Other SCOPE OF WORK WATER PROOFING FOR ROOF & BATHROOMS Subcontractor :- AL Warda Alsham Waterproofing & Insulation LLC. Submitted by contractor Signature and Stamp **Received by engineer** Signature and Stamp Name : Name Eng.Muddasir Ali Mir Date: 13.8.2020 Date The works above are Approved Rejected Approved with comments تحمل ور ستشارات الهادسيا 333 IBAL, U.A.E. Signature Inspected by:

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А	30/01/2020	Issued for Approval	BOB	RMO	BA
Rev.	Date	Description	Prepared	Checked	Approved

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	ALAKLIL Tel: 04 399 170 Email	CONSTRUC 1/ Pax: 04 399 1702/ Mo 1 naginkumarp86@gma	TION LL b: 055 5268 39 dl.com	C 5
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Combo roof waterproofing wor	k at Ground floor villa	, Plot no.6714029, B	arsha south	1st, Dubai, UAE
				Date 21-03-2020
From: AL WARDA AL SHAM W	ATERPROOFING & INSI	ULATION LLC	To: POIN	EER ENGINEERING CONSULTANTS
Specs. Ref Roof combo		Drawing Ref		
Sample Compliance	statement	Original Brow	chure 🖁	thers (Test Report)
Combo roof waterproofig work as	per DCL standard	Delivery Schedule		
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Local Agent / Representative:		Exhapted Pate Of	Delivery on S	ng.
Civil Structural Other (Specify) SUBMITTED FOR	Archited	ctural 🛛 Electr	ical	Mochanical
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OR CONTRACTOR		RECEIVED BY	CONSULTA	NT
lame: Eng. Nagin Kumar Patel Jesignation: Project Manager Jignature:		Stamp: Signature:		اتر بتد للاستشارات الهند EXE ENGINEERING CONSULTANTS مصاربون رمونسون Stores (Stores) Store) Stores Dubal - U.A.E.
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BARSHA SOUT	H 4 (681), DU	BAL U.A.E.	.14NMRP002 @ AL	Date: 07-06-2020
Client: M/S. GR	OVY INVEST	IMENT LIMITED		Project No: 204
Consultant: M/S.	NEXT ENG	INEERING CONSULTANTS		Ref. No. J204/MIR/102
Contractor: M/S	ZABEEL CO	ONTRACTING CO L.L.C		Rev. No. 00
		MATERIAL INSPECTION	REQUEST	
Originator of the S	Submittal:	SHANMUGAM		Date: 7/6/2020
Authorized Signat	ure:			Reg. By: 8/6/2020
Material Detail			Lis	t of Enclosure
Item D	escription - F	novy Contine Works - Marlan Samala	(Tie	k the Related Box)
		pory country works - Mockup Sample	Vendor's T	echnical Literature
Specs. / BOQ /	Bill No.09- Pr	age 2 Item C		
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Material Specified :				
Material Permanel -			Lest Kesul	8
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Manufiscturer / .ocal Supplier ;	M/s Alwarda /	Nsham Waterproofing & Insulation L.L.C	Samplar	
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	26mj	or slowert.		APP - Approved AAN - Approved As Noted NA - Not Approved, Resubm

Connections or comments made relative to material imprection during this review do not relieve the contractor from compliance with the contract requirement and specifications. This check is only for review of general conformation with the during concepts of the project and general compliance with the information given in the contract documents.

Project Name: RESIDENTIAL B BARSHA SOUTH 4 (681), DUBA	ULDING (B-G-4+R) (IN PLOT NO. JAC14)	WMRP002 # AL	Date: 05.54.2020
Chent: M.S. GROVY INVESTM	ENT LIMITED		Parried & Are
Consultant: MS. NEXT ENGINE	ERING CONSULTANTS		Property 204
Contractor: M.N. ZABEEL CON	TRACTING COLLC	10000	Res. No. 87
	MATERIAL SUBMITTAL	FORM	
Originator of the Submittal	SITANMUGAM	TORM	
Authorated Signature			Date (05 64 2020
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	Others	List	of Factories
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NEXT ENGINEERING CONSULTANTS

SUBMITTAL FORMS

		***********	4195 P. O. BOX 11	1616 EMAIL: gulleng@emirates.net.ae
		Material A	pproval Form	
Submittal No.	FH MA C 020	Rev. 0 D	Date 31-12-2019	New Submittal.
Project No.	1707		Client	AL MAQTA DATES FACTORY
Project Title	ADDING OF MEZ	ZANINE FLOOR AN	D MODIFICATION IN	GROUND FLOOR FOR THE EXISTING
Consultant	GULF ENGINEER	ING CONSULTANT	Contractor	SAM BUILDING CONTRACTING
Sub-contractor	Alwarda Alsham W	aterproofing LLC	Trade	Waterproofing
Attachements	Sample.	Fechnical Data	QA/QC Reports.	Method Statement.
Area of Applicatio	n / Location	WET ARE	A	Dimension Statement. LOthers
Specs Ref.	NA	Dwg. Ref.	NA	BOQ ref. NA
Origin Local Agent	UAE		Manufacturer Nan	ne: Alwarda Alsham Waterproofing LL
Cocal Agent	18/4			
		Contractor	c-mail/iel.	info@alwadame.com-042242452
Material / Submitta Details if Alternati	al Comply with Speci	Contractor fications	s Attestation	Alternative.
Material / Submitta Details if Alternati Submitted By	al Comply with Speci ve:	Contractor ifications	Signature / Date	Alternative.
Material / Submitta Details if Alternati Submitted By SHAHID DESHMUI	Al Comply with Speci ve: ve: ve: ve: ve: ve: ve: ve: ve: ve:	Contractor ifications	Signature / Date	Alternative.
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Mr. Tariq Gargash & Ms. Samira Gargash	PROGRESS
Project: Construction of Residential Building Consist of (6+G+7 Type+Rool I	tealh Club) 4168039 4, 4168038
Owner : Mrs Samko Gargosh & Mr, Tariq Gargosh	Date: 29 January 2020
Client: Mrs. Samling Gorgash & AV. Torig Gargash	Project No:22687 8:22688
Consultant M/s Next Engineering Consultants	Rel. No. FC/MTS/CVL/041
Atela Contractor: Mrs. Process Constructions LLC	Ray No. 00
MATERIAL SUBMITTAL FOR	M
	Date: 29 January 2020
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APPROVED BY

ADNAN SAFFARINI

CONSULTANTS

CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municiparty hereby attests that the product(s)

In-situ Formed Sprayed PUR/PIR Thermal Insulation (Details as per the attached Scope of Certification)

manufactured by

ALWARDA ALSHAM WATERPROOFING AND INSULATION L. L.C

ROOM NO. 437, AL NASIRIYA BUILDING, AL QUSAIS3 DUBAI UAE

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM mird party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specific

BS EN 14315-1: 2013

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-gentioned products)

Director, Dubai Central Laboratory Department for / ENGR AMIN AHMED AMIN

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VENDOR REGISTRATION LETTER - 2020

Ref: 20 - 203300211 Date: 19/ 02/ 2020

Addressee /UAE / Dubai - Sharjah Company: AI WARDA AL SHAM WATERPROFING AND INSULATION L.L.C

Dear / AI WARDA AL SHAM WATERPROFING AND INSULATION L.L.C.

Next Engineering Consultants is a registered to ISO 14001:2015[EMS], the internationally recognized Environmental Management Standard. We have undertaken this task in support of our vendors and to fulfill Next Engineering Consultants commitment to protecting our vendors and the environment.

As a valued (supplier, contractor, subcontractor, etc.) to Next Engineering Consultants, your company plays an essential role in your profession.

We hereby confirm that you have been successfully registered in vendor list of Next Engineering Consultants.

Next Engineering Consultants expects your company or any hired subcontractors performing work on-site to have the proper certifications, permits and proof of insurance to conduct their work. Our registrar, may contact you to make further inquiries regarding this matter.

Please sign this letter and return to us by 19 / 02 / 2020 so we have evidence of your receipt of this information.

Thank you in advance for your assistance in helping us create a better environment for all of us.

Sincerely.

Maysaa Al wakeel Director of Development & Public Relations



I have read and relayed the contents of this letter to my employees and consectors.

Sinned

Date: 19 /02/ 2020

Note: The validity of the vendor registration is for one calendar year effective this letter date.

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PROJECT: 6 Residential Buildi	ings at Meydan Distric	tt 1 Phase 1 Dubai, UAE	
CONSULTANT: 360D Arch'l Des	sign Consultancy LLC	CONTRACTOR: AL SHAMANDI CONSTR	UCTION LLC
Material Approva	l/Submittal	Reference No. :	ARP 1.3 /MTS/CVL/TD-169 Rev.0
Material Proposed :	TECHNICAL & MAT	TERIAL SUBMITTAL FOR COMBO SYSTEM WATERPROOFING	Enclosed:
Manufacturer/SUB-CONTRACTOR Discipline / Section :	AL WARDA ALSHAM WA CIVIL	TERPROOFIING AND INSULATION LLC	Company Profile Approvals Meterial Test Report
Specs./BOQ/Drg. Ref. :	N/A		Technical Data Sheet
Material Specified : Originator of Submittal : Reason for Alternative :	AL SHAMANDI CONSTRU	KCTION LLC	Consultant Approval Consultant Approval Consultant References
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Project No:	2708		Date:		16/Dec/19	
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Engineer:		1	Employer:	Main Contractor:
		/		Dubai Walls
		SUBCONTRACT	TOR SUBMITTAL (S	CSUB)
Reference No.	DWC/1171/8	SCSUBIZE	and the second se	1081e: 02.02.2020
Project Description :	R+G+d+Pf	Pesidential and Commer	rcial Building	
Client's Name :	the Wadaar	Malmaitili	icer outong.	
Plot No :	JVC110MR	Adda		
Location :	Jumeirah V	Illane Circle, Al Barsha S	South Fourth, No 681, Dubai-	UAE
Consultant :	M/s. Ridge I	Engineering Consultants	5	
Contractor :	Mis. Dubai 1	Walls Constructions LLC	C	
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IV. Mr. Usamie	adau - reside	un ciedinget	PROM: WE MONAM	eo mouscala - Projecas menager
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MATERIAL APPROVAL SUBMITTAL - GWIL

Contractor:	AROMA INTERNATIONAL	L EARDONI I & ENGINEERE SULCING CONTRACTING LLC.	Ref. JIBERNENCEVILID49 Oute 14-6-19 Pilot Re. 418-8027
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PROJECT NAME: Residential VIIIa PJFRN 028, Al Nahkiat, Jumeirah, Dubai





CLIENT: Mr. Siraj Ahmed Kalsekar

MATERIAL & MANUFACTURER APPROVAL REQUEST

Project No : 2956/175	Date: 26 Nov 19	Contractor: M/s K & D International Contracting L.L.C
Item'		MAR No: 2956/175-CI-WP-MAT-0020 Rev: 01
Spec Clause : 10.3	BQ : Bill No. 5	Drg:
Description : MEMBRANE	, PRIMER & PROTECTIO	ON BOARD
Product : SOPI	RALENE FLAM (SBS Mo	odified Bitumen Membranes) , SOPRABOARD
(Sem	i-Flexible Bituminous Pro	tection Board, SOPRADERE(Solvent Base
Water	rproofing Primer)	
Aanufacturer : SOPF	REMA	
Country of Origin : UNIT	ED ARAB EMIRATES	Supplier : M/s ALWARDA ALSHAM
ariation from Spec: NIL		WATERPROOFING & INSULATION LLC
incl : TECH	NICAL DATA, SAMPLE	(at site office)
f alternative materials subi	mitted, attach full compar	ison to the specified.
ate Submitted: 26 Nov 19	11	Approval required by:
igned	NU/	Signed:
lain-Contractor: Mr. David	Guy - PM	Sub-Contractor:
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A Approved G	B Approved as noted	C Not approved – Resubmit as noted
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ROJECT: MAJID VILLA PJFRNO	84			
CLIENT	CONSULTANT		C	ONTRACTOR
RADIYA MAJID ALIMAHOMED	ABDUL RAHIM ARCHITEC	CTURAL	KAI	NTRACTING LLC
REF NO MS-CIV-STR-021	MATERIAL SUBMI CIVIL	TTAL		DATE 18-Nov-19
Material	Attachments		Rete	18008
		B.C	.Q	Specifications
WATERPROOFING	() Brochure	SECTI	ONC	
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Manufacturer	() Guarantee		U	50
BASF	(X) Samples @Site Office)	At <u>p</u> i	ace	For purpose
	[X] I CONNICAL Data		Alternative	Proposal
ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC	COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)	Mate	rial	Reason
Contractor's	Approval requested		Consultan	t's Receipt
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	For consultant's use	4		
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ALWARDA ALSHAM

Waterproofing and insulation LLC

RECENT COMPLETED PROJECT DETAIL

MAIN CONTRACTOR : AL SHAMANDI CONSTRUCTION L.L.C. CLIENT : M/S AZIZI DEVELOPMENT L.L.C. PROJECT NAME : 7 RES. BUILDINGS AT MEYDAN, DISTRICT (1), PHASE (2), DUBAI, UAE SCOPE OF WORK: ROOF COMBO WATREPROOFING & WET AREA WATERPROOFING WORK QUANTITY: 10,000 SQ. METERS



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ALWARDA ALSHAM

Waterproofing and insulation LLC

MAIN CONTRACTOR : MODEL ENGINEERING CONTRACTING COMPANY CLIENT : MR. SAEED ABDULLA NASER AL JUNAIBI PLOT NO. IC3-E07 PROJECT NAME : B+G+4 RES. BUILDING, INTERNATIONAL CITY, DUBAI, UAE SCOPE OF WORK : ROOF COMBO WATERPROOFIG, EPOXY FLOOR COATING QUANTITY: 1650 m²



السوردة المشام تتركيب للواد العزلة شذمم



ALWARDA ALSHAM

Waterproofing and insulation LLC

MAIN CONTRACTOR : ALBANNA ENGINEERING LLC CLIENT : DUBAI PETROLEUM DUBAI SUPPLY AUTHORITY PROJECT NAME : MEC & DEWA SUPPLY AT MARGHAM, DUBAI, UAE SCOPE OF WORK : ROOF COMBO WATERPROOFING QUANTITY: 1800 m²



السوردة المشام تتركيب للواد العزلة ش.ذ.م.م



ALWARDA ALSHAM

Waterproofing and insulation LLC

MAIN CONTRACTOR : PROGRESS CONSTRUCTION CLIENT : MRS. SAMIRA GARGASH & MR. TARIQ GARGASH PLOT NO. 4168038 / 4168039 PROJECT NAME : B+G+7+R RES. BUILDING, NAD AL HAMMAR, DUBAI, UAE SCOPE OF WORK : SUB STRUCTURE, EPOXY, GRP LINING, WET AREA, COMBO ROOF WATERPROOFING WORK QUANTITY: 2400 SQ. METERS





ALWARDA ALSHAM

Waterproofing and insulation LLC

MAIN CONTRACTOR : ZABEEL CONTRACTING COMPANY L.L.C CLIENT : M/S. GROVY INVESTMENT LIMITED PLOT NO. JVC14NMRP002 PROJECT NAME : B+G+4+R RES. BUILDING, AL BARSHA SOUTH 4(681), DUBAI, UAE SCOPE OF WORK : COMBO ROOF WATERPROOFING WORK QUANTITY: 1800 SQ. METERS





ALWARDA ALSHAM

Waterproofing and insulation LLC

MAIN CONTRACTOR : ZABEEL CONTRACTING COMPANY L.L.C CLIENT : M/S. GROVY INVESTMENT LIMITED PLOT NO. JVC14NMRP002 PROJECT NAME : B+G+4+R RES. BUILDING, AL BARSHA SOUTH 4(681), DUBAI, UAE SCOPE OF WORK: EPOXY FLOORING WORK QUANTITY: 3600 SQ. METERS





SI. NO	CONTRACTOR CONSULTANT		PROJECT DETAIL	
1	Generation contracting	Team 90 Engineering	Plot no. 2625422, Al	
1	LLC	consultant	Mizhar 1st, Dubai, UAE	
			Plot no. 7116821, Al	
			Aweer 1st, Dubai, UAE	
		Team 90 Engineering	Plot no. 3340764, Al	
2	Zakir Hasan Irfan Ali	consultant	Satwa, Dubai, UAE	
	Contracting LLC		Plot no. 7117529, Al	
			Aweer 1st, Dubai, UAE	
		Areeg engineering	PIOL NO. 2280142, al	
		COnsultant	Plot no 711/1573 Al	
		Al amir engineering	aweer 1st Dubai LIAF	
		consultant	Plot no. 7115713. Al	
			Aweer 1st. Dubai. UAE	
			Plot no. 3555918, Al Quoz	
		Sac Consultant	2nd, Dubai, UAE	
2	Royal Gulf contracting	Sas Consultant	Plot no. 3555917, Al Quoz	
5	LLC		2nd, Dubai, UAE	
		Arkan Engineering	Plot no. 4161022. Nad Al	
		consultancy	Hammar, Dubai, UAE	
		Sas Consultants	Cu) (ille and polet Nev	
			G+VIIIa ONIY PIOT NO:	
			JII/JIZ, AI AWII ISI, Dubai LIAE	
	Progress construction LLC	Next Engineering Consultants		
			B++7+Roof+health club	
4			on plot no. 4168038, nad	
			al hammar, Dubai, UAE	
	Taif al madena	CVTEC Consulting	Plot no. 673-1183 at Al	
5	contracting LLC	Engineers	barsha south third, Dubai,	
		Lingineers	UAE	
6	K & D international	M2 engineering	Residential Villa PJFRN	
6	contracting LLC	Consultant	028, Al Nahktat,	
			Besidential Villa No 84	
7	K & D international	Abdul Rahim Architec	Palm lumeirah Dubai	
/	contracting LLC		UAE	
0	Eastorn Contracting U.C.	Archeorn Architoc	D-43 Proposed remraam	
0		Archeorp Architee	phase 1, mosque	
			2B+G+3+R Res. Com	
9	Amar al khaleej	Omar Bin Eid Arch	Building plot no. 313-	
	Contruction LLC		US67, Al Hamriya, Dubai,	
			UAE	

10	Al Mohafiz Contracting LLC	Bel Yoahah Arch, Engineering consultant	Villa G+1+ service block+ majlis block+driver room, nad al hamar, Dubai, UAE
		Ridge Engineering Consultants	Proposed labour accomodation G+3, Plot no, 599-2005, Jabel ali, Dubai, UAE
11	Dubai walls construction LLC	Ridge Engineering Consultants	J-1171 Proposed (B+G+4+R) Commercial & Residential Building @ Plot No: JVC110MRA004, Al Barsha South Fourth 681, dubai-UAE
	Tech solar contracting	Osool Engineering consultant	Plot no 2840258, Al khawanii, Dubai, UAE
12	LLC	SAS Consultants	Plot No: 2163147, Al Rashidiya, Dubai, UAE
	Al Nasyah Building contracting LLC	SAS Consultants Architectural & ENG. Consultant	Plot No. 423- 1908 – Al Warqa Third, Dubai
13			Plot no. 262-0951, Al mizhar 1st, Dubai, UAE
		OSOOL Consultants Planners & Designers	G+1 Villa Plot No. 7115862, Al Aweer, Dubai
14	Al Sakher Contracting LLC	Rashid Engineering Consultants	G+1 villa, Jumeirah
15	Mohammad saroor contracting LLC	Al Ofaq Engineering Consultant	1B+G+2+2R, Plot # 1270953, Hor Al Anz, Dubai, UAE
		Noble Space engineering consult	G+1 Villa, Plot No. 7116068, Al Aweer 1st, Dubai, UAE
	ACC building Contracting LLC		G+1+1R, AL AWEER 1ST, DUBAI, UAE.
16		Altomooh al aali engineering consultant	Plot no. 7116479, Al Aweer 1st, Dubai, UAE
17	Samara al najoom building contracting LLC		G+4, Residential/ commercial building Plot no. 540, liwara, Ajman, UAE
18	Belad Al rafdeen metal construction contracting LLC	GCC Engineering consultants	0097- Waterproofing work at level 03, souk works

19	Rukn Al Buteena building contracting LLC	Al hilal engineering consultant	Plot no. 4057, Rahmaiya, Sharjah	
20	Desert Rock contracting LLC	Rimal engineering cosultant	Plot no. 3543608, Al quoz 1st, Duai, UAE	
21	Al Yamamah Building contracting LLC	Osool Engineering consultant	Plot no 316, Al houshi, Dubai, UAE	
22	Star way contracting LLC		Plot no. 3760394, Al barsha, Dubai, UAE	
23	Al rabwah building contracting LLC		Plot no. 1817, Al muweileh, Sharjah, UAE	
24	Dream homes buildings contracting LLC	SAS engineering consultant	Plot no. 3760925, Al barsha2nd, Dubai, UAE	
		Al Turath Al Omrani Engineering Consultants	Plot no. 7116880, Al Aweer 1st, Dubai, UAE	
25	Ultra force construction LLC		Plot no. 1320537, Al Waheida, Dubai, UAE	
			Plot no 4240388, Al warqa 4th, Dubai, UAE	
26	Trust columns contracting LLC	Golden triangle consulting engineering	G+M+2+R building plot no. 3120425, Al souk al kabeer, Dubai, UAE	
27	Eco green contracting LLC	DAR consultant	Plot no. AF FIPS1,Al furjan, Dubai	
28	Al Baraday Contracting LLC	Tasees consulting engineers	Plot no. 7114960, Al aweer 1st, Dubai, UAE	
29	Al Bait Al handassi Al	Adnan saffarini consultants	Plot no. 2610431, Muhaisinah 1st, Dubai, UAE	
25	contracting LLC	Ridge Engineering Consultants	2 Villa(G+1), Plot # 3555921, Al Quoz 2nd, Dubai, UAE	
30	Al turat al aseel contracting LLC	Arcitechtural Heritage and antiquities	Saroukh al hadid museum	
31	Faisal al mansoori contracting LLC	Klick engineering consultant	Plot no. 2510325, Mirdiff, Dubai, UAE	
		Al jethoor engineering consultant	G+1+1R, PLOT NO:7113480, AL AWEER 1ST, DUBAI, UAE.	

32	Saeed Al Marri Building Contracting	Al jethoor engineering consultant	G+1, AL TWAR 3RD, DUBAI, UAE.
		Al jethoor engineering consultant	G+1 Villa, Plot No 2280637, Al Twar 3rd. Dubai, UAE.
33	Al Ikhtiyar al afadhal building contracting LLC	Al noman & Shafique engineerig consultant	Plot no. 118, Al seouh 9, Sharjah, UAE
		Direct Engineering Consultants	Plot no. 7211036, Al Awir 2nd , Dubai, UAE
34	Belkhubais Building Contracting LLC	Maalem Engineering Consultants	Extension, Plot No: 7210470, Al Awir 2nd, Dubai, UAE
		Maalem Engineering Consultants	G+1+1R, Plot No: 7211041, Al Awir 2nd, Dubai, UAE
35	Al Shamandi Construction LLC	360D Arch'l Design Consultancy	6 Residential Buildings At Meydan District 1 Phase 1 Dubai , UAE
36	Space Developers Building Contracting LLC	AmeyEngineering Consultancy	Service Blocks, Plot No. 228629, Al Tawr3rd, Dubai, UAE
37	Al Manakh Building Contracting Co. LLC	Al Rouya Almotakamela consultants	Plot no. 2440498, Muhaisinah 3rd, Dubai, UAE
		Team 90 Architectural & Engineering Consultant	Plot no. 2442786, Muhaisinah, Dubai, UAE
38	Mishra Contracting LLC	Sahil Engineering Consultant	Plot no. 4238213, Al Warqa, Dubai, UAE
		Sahil Engineering Consultant	Plot no. 2661973, Oud Al Muteena 2, Dubai,
39 Albanna Engineering		Tebodin	MEC & DEWA Supply at Margham, Dubai, UAE
40	Al Ossos Contracting	NSD Architectural Consultants.	G Villa, Plot No. 3370181, Zabeel Second, Dubai. UAE.
41 Alakil Construction LLC		Pioneer Engineering Consultant	Ground Floor Villa, Plot No 6714029, AL Barsha South 1ST, Dubai, UAE.

42	Classico Eivel Contracting LLC	Adnan saffarini consultants	G +1 Villa, Plot No 7112443, Al Aweer 1st, Dubai. UAE.
43	Acc Building Contracting LLC	Altomooh Ali Aali Engineering Consultancies	G+1+1R, AL Aweer 1ST, Dubai, UAE.
44	Walk Thru Contracting LLC	Model Engineering Consultants	Private Villa, E157, Emirates Hills, Dubai, UAE.
45	Model Engineering Contracting LLC		B+4+R Building, International City, Dubai, UAE
46	Zabeel Contracting Co. LLC	M/S Next Engineering Consultants	B+G+4+R Plot No JVC14NMRP002, AL Barsha South 4(681), Dubai, UAE
47	AL Kitbi Build. Cont. LLC	SAS engineering Consultant	Ext. PLOT NO: 9311117, AL LISILY, UAE
48	Granada Europe Engineering Contracting		1B+G.F+3P+10 Typical Floor, Dubai, UAE
49	Heilbronn Contracting Company		Villa P88, Emirtes Hills, Dubai, UAE
50	Bin Dasmal Contracting EST.	Qandil Engineering Consultancy	G Villa, Plot No. 3751570, Al Barsha 3rd, Dubai, UAE.
51	Bravo Construction LLC	Engineering Consortium Consulting	G+2+Roof Building, Plot # 1270921, Hor Al Anz, Dubai, UAE
52	Ideal Systems Contracting LLC		G+1 Building, Plot No 7212578, Al Aweer 2nd, Dubai, UAE
	City Sky Star Building	Al Turath Al Omrani Engineering Consultants	G+2, 4 Blocks, Plot No: 0092, Al Rumaila 2, Ajman, UAE
53	Contarcting LLC	DXB Design Studio Architecture Consultants,Planers.	G+1 Villa (Modification of Structure & Architecture) Plot No 2620404, Al Mazhar 1, Dubai, UAE
54	PGS Gulf Contracting LLC	CVTEC Consulting Engineers	G+1, 30 Villas, Plot No: 5981421, Dubai Investment Park 1, Dubai, UAE
55	Khalifa Al Zaidi	Al Rafdeen Engineering	G+1 Villa, Plot No 7115769, Al Awir, Dubai,

	Generation Contracing &		G+1 Villa, Plot No:
56	General Maintenance	Team 90 Architectural &	2625422, Al Mizhar 1st,
	LLC	Engineering Consultant	Dubai, UAE
57			
57	Nad Al Shiba		Villa No: 40, Nad Al Shiba
			Proposed Villa (G+1+R)
58			+Service Block, Plot No:
	Al Haram Alrabia		216622, Al Rashidiya,
	Contracting		Dubai, UAE
59			Posidontial Ruilding
	Al Sanam Contracting		Residential Building,
	Al Ancof Al Thohava		Al Awoor Poloco, Dubai
60	Ar Alisar Ar Mabaya		
	Technical Services		UAL
			Omar Alhai Villa at Plot
61			no: 6713596. Al Barsha
01	Construction Multilex		South 1, U. G. Water Tank
	Contracting Co LLC		,Dubai, UAE
			G+1+1R, PLOT NO
62	Desert Light Contracting	Team 90 Architectural &	3320525, Jumiarah 1,
	LLC	Engineering Consultant	Dubai, UAE



TYPICAL DRAWING AND METHOD STATEMENT

Aqua Shield Combo Roofing System



COMBO ROOF SYSTEM

- Combo Roof system is a comprehensive system comprising of waterproofing, thermal insulation and finishing for the roof. This unique system is a technically advanced fast curing.
- This system provides a manufacturer's Guarantee of 25 years against any leakage. The system meets all latest thermal insulation standards and regulations in UAE and is accepted by all major property developers, consultants and contractors.

Combo Roofing System VS Bitumen Membrane System

TECHNICAL EVALUATION OF BITUMEN MEMBRANE SYSTEM & COMBO-ROOF SYSTEM

BITUMEN MEMBRANE SYSTEM	COMBO-ROOF SYSTEM	
 <u>NO DUBAI MUNICIPALITY SYSTEM EVALUATION</u> Non-availability of any comprehensive roofing system supplied & installed by a single manufacturer complying to the thermal insulation standards set by Dubai Municipality. 	<u>SYSTEM EVALUATION DONE BY</u> <u>DUBAI MUNICIPALITY</u> • COMBO-ROOF is a comprehensive roofing system supplied & installed by a single manufacturer, made to suit the thermal insulation standards set by Dubai Municipality.	
 HEAT INSULATION & WATERPROOFING WITH JOINTS (U VALUE OF 0.504 W/M² K). Torch applied waterproofing membranes with 10cm overlap joints always have the tendency to fail in their joints under lateral strain. Readymade heat insulation boards with joints have the risk of heat transmitting through their joints. 	 JOINT FREE INSULATION & WATERPROOFING (U VALUE OF 0.444 W/M² K) Monolithic layer without any joints can ensure complete protection against any possible leakage. Monolithic heat insulation layer ensures complete protection against any possible heat transmission. 	
 <u>10 YEARS GUARANTEE</u> Life of a building is not just ten years. Then why should we consider an inferior system while constructing a building knowingly that the cost of replacement is more than double after ten years? 	 <u>25 YEARS GUARANTEE</u> Our guarantee is based on 20 years of applied research on buildings done using combo-roof system and, past performance record of two decades. 	

Method of Statement Combo Roof System (Green Building)

SPRAY APPLIED POLYURETHANE COMBO ROOFING SYSTEM (AQUA SHIELD)

- 1. Cleaning of dust and debris on the roof area using compressed air.
- Polyurethane foam spray : Supply and apply approximately thickness of 70 to 75mm polyurethane foam with density 40-45kg from elestogran BASF or BAYER.
- 3. Rubberized coating : After Polyurethane foam spray. Rubberized coating nitoproof 30 from fosroc or "Polycoat RBE" or equivalent will be done by using brushes or rollers after completely coating dry, water test can be done from min. 24 hours to max. 72 hours.
- 4. Separation Layer: above the rubberized coating 120 gms/m2 geo textiles alaf from K.S.A., the filter membrane will lay down as separation layer.
- 5. Preparation of Panels: On the geo textile the flexible board 2 * 3 meter panels will be made in slopes for screed.
- 6. Screed: Supply and application of a layer of ready mix screed to slope of average 80mm thick.
- 7. Filling Sealant into the Expansion Joints : After stability of screed the flexible board will be removed from the joints and filled with single component of polyurethane sealant having the backing rod inside.
- 8. Cementatious coating : Finally, the cementatious coating will be done with the brush bond material as protection and final finished layer to give attractive and smooth look on the roof top and it is ultraviolet exposed to the sun .



Alwarda Alsham Waterproofing and Insulation LLC

Typical Section Of Combo Roof System

torn a stationers



STEP-5 : FIX BACKING ROD & HEAVY DUTY ELASTOMERIC POLYSEAL 1PU SEALANT TO ALL CONSTRUCTION JOINTS IN SCREED.

STEP-9 : FIX ANGLE FILLETS ALONG THE PARAPET, MECHANICAL DUCT OPENINGS AND PRE-UTILITY UPSTANDS

STEP 10:APPLY FINAL COAT OF POLYFLEX (COMBO) CENENTATIOUS PROTECTIVE COATING ABOVE SCREED & ANGLE FILLET (+50MM VERTICALLY),

Alwarda Alsham Waterproofing and Insulation LLC

RainWater Outlet Termination Detail



Alwarda Alsham Waterproofing and Insulation LLC

Pipe Penetration Details



THE PLANT OF DETYNDER OF SHORE AND AT TURN



MATERIAL TECHNICAL DATA

ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)

1st STEP: POLYURETHANE FOAM

2nd STEP: RUBBERIZED COATING

3rd STEP: SEPARATION LAYER

4th STEP: ANGLE FILLET & PROTECTION SCREED

5th STEP: WEATHER COATING& JOINT PU SEALANT ALONG WITH BACKING ROD





CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality hereby attests that the product(s)

Low Emitting Materials (Paints, Coatings, Adhesives, Sealants)

(Details as per the attached Scope of Certification)

manufactured by:

BASF CONSTRUCTION CHEMICALS UAE L.L.C

P. O. Box: 37127, Dubai Investments Park, Dubai, United Arab Emirates

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

2017 AL SA'FAT GREEN BUILDING EVALUATION SYSTEM

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-mentioned product(s).

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for / ENGR. AMIN AHMED AMIN Director, Dubai Central Laboratory Department Dubai Municipality



Certificate No: CL17020503 Valid Until: 16/09/2020



Current Issue Date: 17/09/2019 Original Issue Date: 17/09/2018

The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate. This Certificate is an electronic document subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.







DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020503

Certificate Issued To:

BASF CONSTRUCTION CHEMICALS UAE L.L.C

P. O. Box: 37127, Dubai Investments Park, Dubai,

United Arab Emirates

2017 Al Sa'fat - Dubai Green Building Evaluation System

Applicable Standard Specification:

Applicable Specific Rules:

RD-DP21-2180-(IC) Specific Rules for Certification of Paints and Coating through Factory Assessment as per the 2010 Dubai Green Building Regulations and Specifications.

S/N	Product Description	Brand Name	Product Details
		1-COATINGS	
	Exterior walls of		Solvent Base Coating for Interior & Exterior coatings products VOC (Al Sa'fat-DGBES Limit is
1	mineral substrate coatings	MasterProtect 300	max.430 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD-DP21-2180(IC)}
	(3)		LRV Class 1 (=>45) – "Can be used in 75-100% of surface to be /painted/coated"
	Exterior walls of		Water Base Coating for Interior & Exterior coatings products
2	mineral substrate coatings (3)	Masterseal AWB661 I Masterseal AWB661 HP	VOC (Al Sa'fat-DGBES Limit is max.430 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD-DP21-2180(IC)} LRV Class 2 (<45) – "Can be used in 0-25% of surface to be
	Two pack		Water Base Coating for Interior & Exterior coatings products
3	performance coatings for specific end such as floor (10)	MasterSeal 588 White MasterSeal 550 White Masterseal 570	VOC (Al Sa'fat-DGBES Limit is max.140 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD-DP21-2180(IC)} LRV Class 1 (=>45) – "Can be used in 75-100% of surface to be /painted/coated"





DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020503

4	Two pack reactive performance coatings for specific end such as floor (10)	MasterTop 500 ; MasterTop 135PG MasterTop 518 ; MasterTop 541 MasterTop 548 ; MasterTop 518	Water Base Coating for Interior & Exterior coatings products VOC (AI Sa'fat-DGBES Limit is max.140 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD-DP21-2180(IC)} LRV Class 2 (<45) – "Can be used in 0-25% of surface to be painted/coated
5	Two pack reactive performance coatings for specific end such as floor (10)	MasterProtect 185	Solvent Base Coating for Interior & Exterior coatings products VOC (AI Sa'fat-DGBES Limit is max.430 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD-DP21-2180(IC)} LRV Class 2 (<45) – "Can be used in 0-25% of surface to be painted/coated
6	Two pack reactive performance coatings for specific end such as floor (10)	MasterTop 528; MasterTop 538 MasterSeal 550; MasterSeal 588 MasterSeal 501	Water Base Coating for Interior coatings products VOC (Al Sa'fat-DGBES Limit is max.140 g/l)
7	Two pack reactive performance coatings for specific end such as floor (10)	MasterProtect 180; MasterProtect 1825 MasterProtect 1812;MasterProtect 1813 MasterProtect 180; Master Seal TC 256 Master Seal TC 257; Master Seal M866 Master Seal TC 242 ; Master Top 1120	Solvent Base Coating for Interior coatings products VOC (AI Sa'fat-DGBES Limit is max.500 g/l)





DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020503

8	Multi- component colored coatings (11)	MasterTop 1205; MasterTop P 651 MasterTop 1210; MasterTop 1210CP MasterTop 1230; MasterTop 1240 MasterSeal Traffic 1331; MasterTop P 650	Solvent Base Coating for Interior coatings products VOC (AI Sa'fat-DGBES Limit is max.100 g/l)		
9	Multi- component colored coatings (11)	MasterTop 1110	Solvent Base Coating for Interior coatings products VOC (Al Sa'fat-DGBES Limit is max.100 g/l)		
10	Decorative effect coating (12)	MasterTop DTZ	Solvent Base Coating for Interior coatings products VOC (GBRS limit is max.200 g/l)		
11	One- pack performance coatings (9)	Master Protect HB 200LR	Water Base coating for Interior coatings products VOC (Al Sa'fat-DGBES Limit is max.140 g/l)		
12	Primer (7)	MasterBrace P 3500	Solvent Base Coating for Interior coatings products VOC (Al Sa'fat-DGBES Limit is max.350 g/l)		
	2- SEALANT				
1	Architectural sealant	MasterSeal GG 470 MasterSeal PG 470	Solvent Base architectural sealant VOC (Al Sa'fat-DGBES Limit is max.250 g/l)		
3-ADHESIVES					
1	Ceramic Tile Adhesive	MasterTile 15; MasterTile 30 ; MasterTile FLX23; MasterTile FLX24 MasterTile 401; MasterTile 434 MasterTile RSG 705; MasterTile 530 MasterTile 707; MasterTile WP668 MasterTile P 302; MasterTile P 303 Master Tile 333; Master Tile Eco	Water Base Tile Adhesive VOC (Al Sa'fat-DGBES Limit is max.65 g/l)		




SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020503

2	Dry wall and Panel Adhesive	Alpha Dry Adhesive Alpha Dry Base Coat	Dry wall and Panel Adhesive VOC (Al Sa'fat-DGBES Limit is max.50 g/l)
3	Multi-Purpose Construction Adhesive	MasterBrace ADH 2200 MasterBrace ADH 1414 MasterBrace ADH 1441 MasterBrace ADH 4000 MasterBrace SAT 4500 MasterTop 2200	Dry wall and Panel Adhesive VOC (Al Sa'fat-DGBES Limit is max.70 g/l)

NOTE1: This document forms part of the Certificate of Product Conformity bearing the same certificate number.
 NOTE2: The above product shall bear the DCL Conformity Mark.

Original Issue Date	:17September2018
Current Issue Date	:17September2019
Valid Until	:16September2020

ARIF HUSAIN AL MARZOOQI Products Conformity Assessment Section Manager Dubai Central Laboratory Department



Elastogran Kanoo Polyurethane Systems LLC Page 1/3

ايلاستوغران كانو بوليوريثان سيستيمز ذمم.

Technical Data Sheet

Elastospray H 1611/16

Application

PU spray foam system for the production of spray foam for insulation as well as water proof application. The system can be applied on substrate like metal, plywood and concrete. Suitability must be examined by the user prior to commercial use.

Chemical Characteristics

Polyol-Component: mixture of polyols, fire retardants, stabilizer, catalyst, blowing agent HCFC141 b Iso-Component: polymeric diphenylmethane diisocyanate (IsoPMDI 92140)

Supply

The type of supply for the components will be decided after consultation with our Sales Office.

Storage, Preparation

Polyurethane components are moisture sensitive. Therefore they must be stored at all times in sealed, closed containers. More detailed information should be obtained from the separate data sheet entitled "Information for in-coming material control, storage, material preparation and waste disposal" and from the component data.

Processing

For the processing follow the information provided by our technical adviser.

Possible Hazards

The B-component (Isocyanate) irritates the eyes, respiratory organs and the skin. Sensitisation is possible Through inhalation and skin contact. PMDI is harmful by inhalation. On processing these, take note of the Necessary precautionary measures described in the Material Safety Data Sheets (MSDSs). This applies also for The possible dangers in using the A-component (Polyol) as well as any other components. See also our separate Information sheet "Safety- and Precautionary Measures for the Processing of Polyurethane Systems." Use our Training Programme "Safe Handling of Isocyanate."

Waste Disposal

More detailed information is provided in our country -specific pamphlet.

Consumer articles, medical products

There are national and international laws and regulations to consider if it is intended to produce consumer articles (eg articles that necessitate food or skin contact, toys etc.) or medical objects out of Elastogran's products. Where these do not exist, the current legal requirements of the European Union for consumer articles as well as medical products should be sufficient. Consultation with the Elastogran Sales Office and our Ecology and Product Safety Department is strongly recommended.

Elastogran Kanoo Polyurethane Systems Limited Liability Company est to Federal Law No. 8 of 1984 with a paid up share capital of AED 1 Mo. established pursuant P.O. Box 490001, Dubai, UAE

Dubai Industrial City, Building 4, 203 Phone +971 4 429 0275 Fax +971 4 429 0279 www.elastogran-kanoo.ae

Standard Chartered Bank A/c No : 01-700-3927-01 SWIFT: SCBLAEADXXX ايلاستوغران كانو بوليوريثان سيستيمز ذات مسئولية محدودة حسب القانون الاتحادي رقم (٨) لعام بنك ستاندرد تشارترد

حساب رقم: ۰۱-۷۰۰-۳۹۲۷-۰۱

SWIFT: SCBLAEADXXX

١٩٨٤ برأس مال مدفوع بقيمة ١ مليون درهم ص.ب. ۲۰۰۱، برس مان مليو ع بقيمه ۲ ص.ب. ۲۹۰۰۰۱، دبي، [.ع.م. هاتف: ۲۲۹ ۲۲۵ ٤ ۲۷۱+ فاکس: ۹۷۱ ٤ ٤۲۹ ۰۲۷۹+ www.elastogran-kanoo.ae





The Chemical Company

Elastogran Kanoo Polyurethane Systems LLC

Page

ايلاستوغران كانو بوليوريثان سيستيمز ذمم.

Elastospray H 1611/16

2/3

Component Data

Characteristics	Unit	Component A Elastospray H 1611/16	Component B Iso PMDI 92140	Method
Specific Gravity (25℃)		1.14 ± 0.02	1.24 ± 0.02	EKPS-01-01
Viscosity (25°C)	Cps	450 ± 100	170 - 250	EKPS-02-01
Storage stability	Days	180	180	

*find below basic mix ratio

Processing Data

Cup test by Bench mixer at 3000 rpm

	Unit	specification	Method
Cuido formulation	Component A	Elastospray H 1611/16 (pbw) = 100	
Guide formulation	Component B	Iso PMDI 92140 (pbw) = 100	
Component temperature	C	20	
Quantity	g	A = 75 B = 75	
Mixing ratio		A : B = 100 : 100	
Stirring time	S	4	
Cream time	S	4 ± 2	EKPS-04-01
Gel time	S	8 ± 2	EKPS-04-01
Tack Free time	S	10 ± 2	EKPS-04-01
Density, free rise	kg/m³	27.5 ± 0.5	EKPS-04-01

General Advice

It is not known whether this system is equally suitable for all types of sheet metal and primer offered on the market. Therefore, suitability must be examined by the user in each individual case.

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ايلاستوغر إن كانو بوليوريثان سيستيمز ذات مسئولية محدودة حسب القانون الاتحادي رقم (٨) لعام یدنسوعران محفو بویوریین سیسیمر دے مسومیہ ۱۹۸۶ براس مال مدفوع بقیمة ۱ ملیون در هم ص.ب. ۲۰۰۱ ، ۲۹۹، دبی، ارع م بنك ستاندرد تشارترد

حساب رقم: ۰۱-۷۰۰-۳۹۲۷-۰۱ SWIFT: SCBLAEADXXX

. فاکس: ۹۷۱ ٤ ٤۲۹ ۰۲۷۹+ www.elastogran-kanoo.ae





Elastogran Kanoo Polyurethane Systems LLC

Page 3/3 Elastospray H 1611/16

Characteristics	Unit	Measured value	Test Method		
Measured values were determined on specimens during the product approval/Approved product. Verification of these properties on production plants at user's site under prevailing production conditions is required.					
Density / overall	kg/m³	40	ASTM D 1622		
Closed cell content	%	90	ASTM D 6226		
Thermal Conductivity	w/mK	0.0210	ASTM C 518		
Compressive stress at 10% deformation	kPa	150	ASTM D 1621		
Dimensional Stability -20℃ for 48 hrs +70℃ for 48 hrs	% change in volume	0.48 0.66	ASTM D 2126		
Flammability	-	В3	DIN 4102		

The data contained in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, this data does not relieve processors from carrying out their own investigations and tests; neither does this data imply any guarantee of certain properties, or the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weighs etc given herein may change without prior notice and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (Date of publication).

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بنك ستاندر د تشار تر د

حساب رقم: ۰۱-۷۰۰-۳۹۲۷

SWIFT: SCBLAEADXXX

۱۹۸۶ براس مال مدفو بویریک مر تا ۱۹۸۴ براس مال مدفو بویمهٔ ۱ ملیون در هم صرب ۲۹۰۱ ۹۷۹ ؛ دیم ۱٫عم هانک ۲۹۰۲۷ ؛ ۲۹۹ + فاکس ۲۷۹ ؛ ۲۹۹ ؛ ۱۷۹ +





Elastogran Kanoo Polyurethane Systems LLC

Page 3/3 Elastospray H 1611/16

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Flammability	-	В3	DIN 4102		

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بنك ستاندر د تشار تر د

حساب رقم: ۰۱-۷۰۰-۳۹۲۷

SWIFT: SCBLAEADXXX

۱۹۸۶ براس مال مدفو بویریک مر تاک ۲۹۸۵ براس مال مدفو بویمهٔ ۱ ملیون در هم هاتف ۲۹۰۲۷ که ۲۹۹ فاکس: ۲۹۹۰۲۹ که ۱۹۹۲ www.elastogran-kanoo.ae



BASF Kanoo Polyurethanes LLC



BASF Kanoo Polyurethanes LLC	Certificate of Analysis
Plot:533-328, Chemical Zone	DIN EN 10204-2.2
Dubai Industrial City-3	
490001 Dubai, UAE	Date
	05.12.2019
	Cust. ref. no./Date
Sheridan Building Materials Trading	23822
Office No. 215 Bin Suloum Building 65034	Delivery position
Dubai	2038010072 900062
UAE	Order position
	2028011150 000030
	Quantity
BASF Contact:	10,000.000 KG
Felipe Mallari	Batch
Tel. +971-444-708-07	19I19A90H0
	Expirydate
	17.06.2020

Material: 55838241 IsoPMDI 92140 250KG 1A1

Please note that the certificates are also conveniently available online. If you are interested, you can register at worldaccount.pu.basf.eu

Method / Parameter	Unit	Value	Lower Limit	Upper Limit
BA000300 BASANT 7952	%(m)	31.4	30.5	32.5
BA000302 BASANT 1334 Viscosity (25 C)	mPa.s	198	170	250

Inspection lot 905020267067 Traceability no. B524

This certificate has been electronically printed and is valid without signature

The above information is provided from the results of our quality inspection. It is not a guarantee of any properties, or a recommendation as to the suitability of the product for specific applications or purposes. No claims may therefore be brought against us on the basis of this information. It does not absolve the purchasers from an obligation to carry out their own controls on incoming goods.

BASF Kanoo Polyurethanes LLC

We create chemistry

BASF Kanoo Polyurethanes LLC	Certificate of Analysis
Plot:533-328, Chemical Zone	DIN EN 10204-3.1
Dubai Industrial City-3	
490001 Dubai, UAE	Date
	24.12.2019
	Cust. ref. no./Date
Sheridan Building Materials Trading	23822
Office No. 215 Bin Suloum Building 65034	Delivery position
Dubai	2038010041 900176
UAE	Order position
	2028011124 000010
	Quantity
BASF Contact:	12,100.000 KG
Felipe Mallari	Batch
Tel. +971-444-708-07	0021845545
	Expiry date
	12.06.2020

Material: 50252717 Elastospray 1611/16 220KG 1A1

Please note that the certificates are also conveniently available online. If you are interested, you can register at worldaccount.pu.basf.eu

Method / Parameter	Unit	Value	Lower Limit	Upper Limit
G133-03 Water content				
Water content	%(m)	1.66	1.50	1.90
G132-01 Cup test				
Mixing ratio A/B=100/		106.0		
Weight of A component	g	31.8		
Weight of B component	g	33.7		
Mixing time	S	3		
Start time	S	5	1	9
String time	S	10	6	16
Rise time	S	20	17	27
Free rise density	kg/m3	32.7	29.0	37.0

Inspection lot 300020724674 Traceability no. 0021845547

This certificate has been electronically printed and is valid without signature

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The Chemical Company

Elastogran Kanoo Polyurethane Systems LLC

Page

ايلاستوغران كانو بوليوريثان سيستيمز ذمم.

Elastospray H 1611/16

2/3

Component Data

Characteristics	Unit	Component A Elastospray H 1611/16	Component B Iso PMDI 92140	Method
Specific Gravity (25℃)		1.14 ± 0.02	1.24 ± 0.02	EKPS-01-01
Viscosity (25°C)	Cps	450 ± 100	170 - 250	EKPS-02-01
Storage stability	Days	180	180	

*find below basic mix ratio

Processing Data

Cup test by Bench mixer at 3000 rpm

	Unit	specification	Method
Cuido formulation	Component A	Elastospray H 1611/16 (pbw) = 100	
Guide formulation	Component B	Iso PMDI 92140 (pbw) = 100	
Component temperature	C	20	
Quantity	g	A = 75 B = 75	
Mixing ratio		A : B = 100 : 100	
Stirring time	S	4	
Cream time	S	4 ± 2	EKPS-04-01
Gel time	S	8 ± 2	EKPS-04-01
Tack Free time	S	10 ± 2	EKPS-04-01
Density, free rise	kg/m³	27.5 ± 0.5	EKPS-04-01

General Advice

It is not known whether this system is equally suitable for all types of sheet metal and primer offered on the market. Therefore, suitability must be examined by the user in each individual case.

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حساب رقم: ۰۱-۷۰۰-۳۹۲۷-۰۱ SWIFT: SCBLAEADXXX

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IsoPMDI 92140

Page 2 / 2 Version 02/bl Date of issue 24.02.2005



Component Data

	Unit	Value	Method
NCO-content	%	31.8	ASTM D 5155-96 A
Acidity as HCI	mg/kg	150	ASTM D 1638-74
Viscosity (25 °C)	mPa⋅s	210	DIN 53 018
Density (25 °C)	g/cm³	1.23	DIN 51 757
Specific heat (20 °C)	kJ/kg⋅K	1.4	-
Specific heat (80 °C)	kJ/kg⋅K	1.6	-
Storage Stability	month	6	-
Appearance	-	brown liquid	-

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Elastogran GmbH

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 Internet:
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ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)

1st STEP: POLYURETHANE FOAM

2ndSTEP: RUBBERIZED COATING

3rd STEP: SEPARATION LAYER

4th STEP: ANGLE FILLET & PROTECTION SCREED

5th STEP: CEMENTATIUS COATING& JOINT PU SEALANT ALONG WITH BACKING ROD



CERTIFICATE OF PRODUCT CONFORMITY





Dubai Central Laboratory Department (DCLD) of Dubai Municipality,

hereby attests that the product(s)

LOW EMITTING MATERIALS (COATINGS, SEALANTS AND ADHESIVES)

(Details as per the attached Scope of Certification)

manufactured by:

HENKEL POLYBIT INDUSTRIES LTD.

P.O. Box 293, RAK Road, Umm Al Quwain, UAE

have been assessed in accordance with DCLD Document Ref. No. RD-DP21-2001 (IC) "General Rules for DM third party product certification system

through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

2010 DUBAI GREEN BUILDING REGULATIONS AND SPECIFICATIONS (GBRS)

Accordingly, OCLD hereby authorizes the above manufacturer

to affix the DCL Product Conformity Mark to the above-mentioned product(s).



for / ENGR, AMIN AHMED AMIN

Director, Dubai Central Laboratory Department

Dubai Municipality

Verify:



Certificate No: CL17020460 Valid Until: 13 May 2019



Current issue Date: 14 May 2018 Original Issue Date: 14 May 2017

F-IC-2031 REV 11

CB-003-PRD

13-PRD The attached Scope of Cortification bearing the same Certificate No. forms an integral part of this Certificate This Certificate is an electronic document, subject to the Terris and Conditions of the Product Certification System and shall not be reproduced except in full





SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020460

Certificate Issued To

HENKEL POLYBIT INDUSTRIES LTD.

P.O. Box 293, RAK Road, Umm Al Quwain, UAE 2010 Oubai Green Building Regulations and Specifications (GBRS) PG 1921 2380 (IC) Summits Only: for Continuum S

RD-DP21-2180-(IC) Specific Rules for Certification of Low Emitting Materials (Paints, Coatings, Adhesives, Sealants) As per the 2010 Dubai Green Building Regulations and Specifications.

	Product		Product Details			
5/N	Description	Brand Name				
1	One Pack Performance Coasings (Sub-Casegory 9 as	Polytherm AC / Combo CRC (WHITE COLOR)	Water Base Coatings for Exterior Application VOC (GBR5 limit is max 140 g/l) Light Reflective Value (LRV is minimum 45%).			
	per Table 1)	Polytex HR	Solar Reflective Index (SRI is minimum 78)			
2	One Pack Pertomance Coacings (Sub-Category 9 as per Table 1)	Polycoat RBE Polycoat RBE 5 Polycoat RBE 5 Polycoat RBE 15 Polycoat RBE 1000 Polycoat RBE 1000 Polycoat RBE 1000 Polycoat RBE 1000 Polycoat RBE 1000	Water Base Coatings for Interior & Exterior Application VOC (GBR51imit is max, 140 g/l)			
3	One Pack Pertomance Coatings (Sub-Category 9 as pro Table 1)	B'tutex FBR Polythane 50	Solvent Base Coatings for Interior & Exterior Application VOC (GBR5 limit is max 500 g/l)			

Applicable Standard Specification:

Applicable Specific Rules:





SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020460

		Polythane PR						
	Two Pack Reactive	Palypoxy MH						
4	Performance	Polypoxy FC						
	Coatings for Specific End Jsc	Polypo×y	Water Base Coatings for Interior Application					
	such as Floors	Polypoxy 5U20	VOC (GBR51imit is max, 140 a/l)					
	(Sub-Category 10	Polypoxy 5L40						
	as per l'able 1)	Polypoxy 5U50						
		Polyscreed PU						
		Polyscreed PU (HD)						
	Two Pack Reactive Portormance	Polypoxy CR						
5	Coatings for Specific End Use such as Floors (Sub-Category 10	Рс урску Р5	Water Base Coarings for Exterior Application					
		Polypoxy EN	VOC (GBR51imit is max, 140 $_{\rm R}$ /I)					
	as per l'able 1)	Polyficx						
		Polyprime WB	Water Base Coatings					
6	Primers (Sub-Category 7 as	Polyprime R	tor Interior Application					
	per Table 1)	Polyprime W	VUC (GBK311mi(15 max, 3(1 g) i)					
		Polybond SBR						
		Polybond PVA						
7	Binding Primers	Polyhond AC	Water Base Coatings					
	lSub-Category & as per Table 1)	Polybond EP	VOC (GBR51imit is max, 30 g/l)					
		Polyprime EP						





SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020460

5	Scalants – Architectural (As per Table 404 02 of GBRS)	Polyscal P5 GG 8 PG Polyscal CR Polyscal PS+ Polyscal PU PF Polyscal EPU Polyscal EPU	Water Base Scalarits for Interior & Exterior Application VOC (GBRS limit is max, 250 _B /I)
э	Scalants – Non Membrane Root (As per Table 4C4 32 of GBRS)	Bitumastic	Solvent Base Scalants for Exterior Application VOC (GBR5 limit is max, 300 _R /I)
10	Scalant Primers – Architectural Porous (As per Table 404 02 of GBRS)	Polyprime PS	Solvent Base Sea ant Primers for Interior Application VOC (GBR51imit is max, 775 _R /1)
11	Sealant Primers – Architectural Non– Porous (As per Table 4C4 32 of GBRS)	Polyprime NP	Water Base Sea ant Primers for Interior Application VOC (GBR5 limit is max, 250 _B /I)
:2	Adhesives – Ceramic Tile Adhesives (As per Table 404 02 of GBRS)	Coresit CM8 Coresit CM117 Polybit CM9 Polybit CM11 Polybit CM15	Water Base Adhesives for Interior & Exterior Application VOC (GBRS limit is max, 65 _B /I)

NOTE1: This document forms part of the Certificate of Product Conformity bearing

the same conditionte number

- NOTE2. The above product shall bear the DCL Conformity Mark.
- **NOTE 3**: For colors/Types not covered by the Scopel SRI and LRV shall be tested and classified based on the application of the product in the construction site to ensure that it meets the requirements of the DM-GBR5





SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020460

5RI Class 1 (> 78) - "Can be Used in 75 - 100% of surface to be coated - Sloped or Flat Root" 5RI Class 2 (29<78) - "Can be Used in 75 - 100% of surface to be coated - Sloped Root" 5RI Class 3 (< 29 or untested) - "Can be Used in 0 - 25% of surface to be coated - Sloped or Flat Root provided the remaining area is Class 1 or 2"

LRV Class 1 (->45) - "Can be used in 75-100% of surface to be /painted/coated" LRV Class 2 (<45 or untested) - "Can be used in 0-25% of surface to be painted/coated provided the remaining area is Class 1".

Original Issue Date	: 14 May 2017
Current (ssue Date	: 14 May 2018
Vəhd Until	: 11 May 2019

ARIF HUSAIN AL MARZOOQI Head of Products Conformity Assessment Section Dubai Central Laboratory Department



POLYCOAT RBE

Rubberized bitumen emulsion

POLYCOAT RBE is an emulsified rubber modified bitumen coating, which dries to form a tough, seamless, flexible vapor proof protective coating. **POLYCOAT RBE** conforms to the requirement of ASTMD 1227 - Type III, class 1

CHARACTERISTICS

- Cold applied
- ▶ Single component, easy to apply
- Can be applied on damp substrates
- Can be applied in closed or confined areas.
- Water based
- Good resistance against chloride and sulphate ions
- Has good adhesion to most building substrates
- Seamless/joint free
- Prevents fungal growth

FIELDS OF APPLICATION

Can be used for a wide variety of applications, which includes the following:

- Protective coating on concrete foundations
- Curing compound on freshly cast concrete structures
- Dampproof membrane in sandwich constructions
- Vapor proof barrier coating for interior & exterior floors & walls

APPLICATION INSTRUCTIONS

The application temperature should be between 5°C to 55°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the bitumen coating system is as follows:

Surface preparation

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. Light mechanical grinding/grit blasting/high pressure water jet may be used to clean the surface of all the contaminants depending on the degree of contamination on the surface to be coated. All surface imperfections and protrusions shall be removed and repaired. Structurally unsound and friable concrete must be removed and repaired with a suitable **POLYCRETE*** concrete repair mortar.

Priming

It is highly recommended to apply a priming coat prior to the application of the **POLYCOAT RBE** coating on the substrate. The primer can be prepared in the site by diluting **POLYCOAT RBE** with 20% water and applying this diluted coat as the primer. For very dry and porous substrates apply two coats of this primer. The primer can be applied to damp or freshly cast concrete surfaces also. However, it should not be applied on waterlogged or flowing water areas. Further coats shall be applied only after the primer coat dries off completely. In case of delay in application of the top coat for more than 24 hours, a fresh coat of primer shall be re-applied.

Foundation Dampproofing

Stir the contents of the drum thoroughly before application to remove all sediments. Depending on the dry film thickness required, apply the rubberized bitumen coating @1-4m²/lt./coat. On vertical areas, it is recommended to apply the coating in multiple layers in order to avoid sagging of the heavy bodied coating. Subsequent coats shall be applied only after the previous coat dries off completely and shall be applied at right angles to the previous coat. Clean dry sand may be broadcasted onto the wet coating to provide a key for the subsequent coats and achieve a greater dry film thickness. The coating should be applied and finished up to the DPC level. If a plaster or cement render is to be applied on the bitumen coated surface, clean dry sand shall be broadcasted on to the coating whilst it is still wet. Leave the coating for curing for a minimum period of 48 hours before applying any protection board or backfilling. Care shall be taken to ensure that the first coat is not punctured during the application of the second coat. However, if the coating is damaged, the area can be readily over coated provided the surface preparation is done properly.

1

Protection

POLYCOAT RBE coating should be protected from getting damaged due to the ongoing site activities and during backfilling.

Coating can be protected either by a cement sand screed (50mm thick) or by an asphaltic protection board (BITUBOARD*). Alternatively, a 1000 gauge polythene sheet can also be used for protecting the coating in areas where the backfill material is not very coarse.

Note: Curing efficiency of Bitumen based emuslsions will not be high as that of Resin based curing compounds

COVERAGE

The coverage varies depending on the type of use: General Use : 4 m²/lt/coat at required no. of coats

CLEANING

Clean all tools immediately after use with water. Hardened material can be cleaned with a solvent.

STORAGE & SHELF LIFE

The drums must be stored in a covered area, away from direct sunlight, UV and other sources of heat.

The shelf life of the product is up to 12 months if stored as per the recommendations. Excessive exposure to sunlight and UV will result in the deterioration of the product and reduce its shelf life.

HEALTH & SAFETY

As with all bitumen products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. (See packing for specific instructions). Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting. Call for medical help immediately. Ensure that the container is available for medical attendant to examine any relevant instructions and content details.

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS			
Color	Dark Brown	-			
Form	Thixotrophic Viscous Liquid	-			
Density, [g/cc]	1.02±0.02	ASTM D 2939			
Solid Content, [%]	60±5 approx	ASTM D 2939			
Rubber Content, [%]	> 10				
Elongation, [%]	> 30	ASTM D 412			
Drying Time [min]	60	-			
Application temp, [°C]	5 to 55				
Service temp, [°C]	-5 to 75				
VOC [g/l]	<50	ASTM D3960/ D2369			

All values given are subject to 5-10% variation

SUPPLY								
Polycoat RE	ЗE	20L pail & 200L drum						
Bituboard	3.2 mm	2m x 1m,	wt 7.7kg#					
	6.0 mm	2m x 1m,	wt 14.0kg#					
WATERTITE TS	5 1 5	10m x 50mm	n, wt 0.60kg#					
*D (<u>^</u>						

*Refer to website for TDS

Approximate weight

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of $+23^{\circ}$ C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Manufactured in G.C.C.



Henkel Polybit Industries Ltd. P.O. Box 293, Umm Al Quwain, UAE Tel: +971 6 7670777, Fax: +971 6 7670197 henkelpolybit@henkelpolybit.com Henkel Polybit Industries Ltd. P.O. Box 2230, AI Khobar 31952, KSA Tel:+966 13 808 4061/62, Fax:+966 13 812 1164 dammam@henkelpolybit.com



CERTIFICATE OF PRODUCT CONFORMITY





Dubai Central Laboratory Department (DCLD) of Dubai Municipality, hereby attests that the product(s)

LOW EMITTING MATERIALS (COATINGS. ADHESIVES and SEALANTS)

(Details as per the attached Scope of Certification)

manufactured by:

FALCON CHEMICALS LLC HATTA AL HIBAB ROAD, JABEL ALI INDUSTRIAL AREA 3, DUBAI, UAE

have been assessed in accordance with DCLD Document Ref. No. RD-DP21-2001 (IC) "General Rules for DM third party product certification system

through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

2017 AL SA'FAT – DUBAI GREEN BUILDING EVALUATION SYSTEM

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark to the above-mentioned product(s).

for / ENGR. AMIN AHMED AMIN

Director, Dubai Central Laboratory Department

Dubai Municipality

Verify:



Certificate No: CL18020593 Valid Until: 28 May 2019



Current Issue Date: 29 May 2018 Original Issue Date: 29 May 2018

F-IC-2031 REV 12

CB-003-PRD

13-PRD The attached Scope of Certification bearing the same Certificate No. forms an integral part of this Certificate. This Certificate is an electronic document, subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.





SCOPE OF CERTIFICATION

FOR CERTIFICATE NO. CL18020593 - Rev01

Certificate Issued To:

FALCON CHEMICALS LLC

HATTA AL HIBAB ROAD, JABEL ALI INDUSTRIAL AREA 3, DUBAI, UAE

Applicable Standard Specification:

2017 Al Sa'fat – Dubai Green Building Evaluation System

Applicable Specific Rules:

RD-DP21-2180-(IC) Specific Rules for Certification of Paints and Coating through Factory Assessment as per the 2017 Al Sa'fat - Dubai Green Building Evaluation System

S/N	Product Description	Brand Name	Product Details
	Primers (Category 7)	ECOSTRIKE	Water based Primer for Interior/Exterior Applications:
		ECOCURE	
		LAVADEC FR	VOC (GBRS limit is max.30 g/l) Heavy metals: Cadmium and Chromium VI
			(GBRS limit < 500 mg/Kg), Arsenic, Mercury and Lead (GBRS limit <100 mg/Kg)
		LAVATEX 100	Formaldehyde ≤ 10 mg/kg
		CEMSTRIKE	Solvent based Primer for Interior/Exterior
		BITUSOL	 Applications: VOC (GBRS limit is max.350 g/l) Heavy metals: Cadmium and Chromium VI (GBRS limit < 500 mg/Kg), Arsenic, Mercury and Lead (GBRS limit <100 mg/Kg)
	One -pack		Water Base Coating for Interior/Exterior
	Performance	ULTRACRETE 120	Applications:





DUBAI CENTRAL LABORATORY DEPARTMENT

DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

Coatings		Cementitious Material				
(Category 9)	ECOFLOORTOP NM	VOC (GBRS limit is max 140 g/l)				
		LRV Class: Class 2				
		SRI Class: Class 2				
	ULTRAFLEX 1K	White Color - See Note #3				
	ULTRATOP ST	Water Base Coating for Interior* / Exterior Applications:				
	ULTRATOP HP	· · · · · · · · · · · · · · · · · · ·				
	ECOCOOL	VOC (GBRS limit is max 140 g/l)				
	ECOTHANE	LRV Class: Class 1				
	COLORTOP	SRI Class: Class 1				
	ECOSHIELD GP	White Color - See Note #3				
	ECOSHIELD SUPER					
	ELASTOTHANE					
	ELASTOFALT ME					
	BITUTEX R- 10	Water Base Coating for Interior Applications:				
	FLEXKOTE	VOC (GBRS limit is max 140 g/l)				
	LAVATEX 2000					
	LAVATEX RBE					
Two -pack Reactive	ECOPOXY 310	Solvent Base Coating for Interior Application:				
Performance	ECOPOXY 410					
Coatings for specific	ECOPOXY SCREED					
end such as hoor" (Category 10)		Solvent Base Coating for Interior* / Exterior Application:				
	ECOPOXY 610	VOC (GBRS limit is max 500 g/l)				
		LRV Class: Class 1 – White Color				
		See Note #3				
	ULTRAFLEX 2K	Water Base Coating for Interior* / Exterior Application:				





DUBAI CENTRAL LABORATORY DEPARTMENT

DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

		LRV Class: Class 1 – White Color See Note #3					
Binding Primers	ECORUSH	Water Base Primer for Interior/Exterior					
(Category 8)	ECORUSH -DECO	Applications:					
	ECORUSH -MS	VOC (GBRS limit is max 30 g/l)					
	ULTRATHERM A 1054	Heavy metals: Cadmium and Chromium VI (GBRS					
	ECOTILE LATEX	Arsenic Mercury and Lead (GBPS limit < 100					
	BONDAID P	mg/Kg)					
	BONDAID S	Formaldehyde ≤ 10 mg/kg					
	TILEBOND UTA	Ceramic Tile Adhesive - VOC (GBRS limit is max					
	TILEFIX PD	65 g/l)					
	ECOTILE ST						
	MARBLEX	Multi-Purpose construction Adhesive - VOC (GBRS					
	ULTRABOND F 440	limit is max 70 g/l)					
	ULTRABOND HD						
	ECOCOLOR GROUT	Architectural Non Porous Sealants - VOC (GBRS					
	ECOFILL NS	limit is max 250 g/l)					
	FALCON						
	FEATHERPATCH						
ARCHITECTURAL	ULTRAFILL NS						
NON POROUS	ULTRAPATCH 522						
SEALANTS	ULTRAPATCH 722						
	ECOPLUG						
	ULTRAFINISH 312]					
	ULTRAPRIME 112						
	ULTRACRETE MC						

* <u>Amended in this scope.</u>

NOTE 1: This document forms part of the Certificate of Product Conformity bearing the same certificate number. NOTE2: The above product shall bear the DCL Conformity Mark.

NOTE3: For colors/types not covered by the Scope, SRI and LRV shall be tested and classified based on the application of the product in the construction site to ensure that it meets the requirements of the DM-GBRS.

SRI Class 1 (> 78) – "Can be Used in 75 - 100% of surface to be coated – Sloped or Flat Roof" SRI Class 2 (29<78) - "Can be Used in 75 - 100% of surface to be coated – Sloped Roof"





DUBAI CENTRAL LABORATORY DEPARTMENT

DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SRI Class 3 (< 29 or untested) – "Can be Used in 0 – 25% of surface to be coated – Sloped or Flat Roof provided the remaining area is Class 1 or 2"

LRV Class 1 (≥45) – "Can be used in 75-100% of surface to be /painted/coated" LRV Class 2 (<45 or untested) – "Can be used in 0-25% of surface to be painted/coated provided the remaining area is Class 1".

NOTE4: This scope of certification supersedes the scope issued on 29 May 2018

Original Issue Date: 29 May 2018 Current Issue Date: 17 July 2018 Valid Until : 28 May 2019

ARIF HUSAIN AL MARZOOQI Head of Products Conformity Assessment Section Dubai Central Laboratory Department

ECOTEX

RUBBERISED BITUMEN EMULSION

ECOTEX is a cold applied bitumen emulsion modified with rubber latex for damp proofing and Waterproofing applications.ECOTEX is a dark brown liquid, which dries to a black, tough and flexible coatingECOTEX provides a seamless barrier to ingress of wate and protection against chlorides and sulphates present in the soil.

Uses

- Waterproofing/damp proofing concrete and brick foundations, basements, retaining walls, bridge abutments, and other surfaces likely to have dampness
- Vapour barrier for interior /exterior walls.
- Damp proof membrane in sandwich panel construction.
- Façade damp proofing

Features

- Creep resistant to high temperatures upto 100 °C
- Non-flammable
- Easy to apply.
- Highly flexible to withstand movements
- Resistant to subsoil corrosive salts
- Adheres well to a wide range of substrates.
- Economical.
- Environment friendly
- Low VOC

Typical Product Characteristics

Appearance: Brown Liquid dries to black protective coating. Sp. gr. : 1.02+/-1.01pH : 8 - 10Total Solids: $33\% \pm 1\%$

Standards

BS 8102 – Protection of Buildings against ground water.

Surface Preparation

Surface should be sound, clean and free of dust, oil or grease and curing compound. Loosely adhering particles such as rust scale, mortar particles etc. should be removed with wire brush or other suitable means.

Application

ECOTEX can be applied by brush, squeegee or spray. Hot, dry or highly porous surfaces should be dampened with clean water prior to application of ECOTEX. Generally two coats are recommended. Apply second coat when the first coat is completely dry. Second coat should be applied at right angles to the first one. When screed or render is to be applied onto the coating the final coat should be sprinkled with sharp clean sand and allowed to dry. Brush off excessive sand before application of screed/renders.

FALCON CHEMICALS L.L.C. P.O.Box 2924 - Dubai., Tel : 00971 4 8801444/8801818 (Fax) Web: www.falconchemicals.com, Email: inquiry@falconchemicals.com

An ISO 9001 & ISO14001 Certified Company

ECOTEX RUBBERISED BITUMEN EMULSION

Coverage

2 to 3 m²/litre/coat on fairly smooth and dense concrete surface. Highly porous and rough surface will affect the coverage.

Packing

200 litre drum & 18Ltr Pail.

Storage/Shelf life

Keep away from direct sunlight and store under normal warehouse conditions. Shelf life of the product is 12 months from the date of manufacturing provided it is stored in unopened factory packed drums.

Cleaning

Tools may be cleaned with water as long as the product is wet. Once dry, by mechanical means only.

Technical Services

Technical assistance and information is available by calling Falcon Chemicals (L.L.C.) on specific application.

Health and Safety

Use normal safety precautions. Wear rubber hand gloves, safety shoes and safety goggles while using and handling the product. Avoid contact with skin and eyes. In case of accidental contact with eyes, wash with plenty of water and seek medical treatment immediately.

General Note

Use this leaflet as a guide for the use of the product concerned. The information given is in accordance with latest technical developments. However, we cannot accept liability/responsibility for any work carried out with our materials, as we have no control over the method of application used or the condition of site involved.

constructionproducts

Issue Date: February 2015

This technical specification supersedes all previous data sheets.

FALCON CHEMICALS L.L.C. P.O.Box 2924 - Dubail, Tel : 00971 4 8801444/8801818 (Fax) Web: www.falconchemicals.com, Email: inquiry@falconchemicals.com

An ISO 9001 & ISO14001 Certified Company

ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)

1st STEP: POLYURETHANE FOAM

2nd STEP: RUBBERIZED COATING

3rd STEP: SEPARATION LAYER

4th STEP: ANGLE FILLET & PROTECTION SCREED

5th STEP: CEMENTATIOUS COATIN& JOINT PU SEALANT ALONG WITH BACKING ROD



PRODUCT DATA SHEET - POLYESTER NON WOVEN GEOTEXTILE

	Properties	Test Method	Unit	GEOTEC PET-100	GEOTEC PET-120	GEOTEC PET-140	GEOTEC PET-150	GEOTEC PET-200	GEOTEC PET-250	GEOTEC PET-300	GEOTEC PET-350	GEOTEC PET-400	GEOTEC PET-450	GEOTEC PET-500	GEOTEC PET-600	GEOTEC PET-800	GEOTEC PET-1000
	CBR Puncture Strength	ASTM D 4833 ASTM D 6241	N	950	1150	1300	1500	1800	2000	2400	3000	3500	4000	4500	5000	7500	9500
rties	Dynamic Puncture	EN 918	mm	30	26	22	19	18	14	12	9	8	7	5	0	0	0
rope	Mullen Burst	ASTM D 3786	PSI	120	140	170	270	280	340	420	520	620	680	740	880	1050	1200
cal P	Elongation	ASTM D 4595	%	60	60	60	60	60	60	60	60	60	60	60	60	60	60
hanid	Flow Rate (5cm Head)	ASTM D 4491	l/m2/s	100	95	90	80	75	75	70	65	60	55	50	45	30	25
Mec	Permeability	ASTM D 4491	cm/s	0.35	0.32	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Opening Size (O95)	ASTM D 4751	micron	100	100	90	75	75	75	75	75	75	75	75	75	75	75
	Minimum Grab Elongation	ASTM D 6241	%	60	60	60	60	60	60	60	60	60	60	60	60	60	60
lex.	Grab Tensile Strength (CD)	ASTM D 4632	N	200	280	320	500	680	880	1150	1450	1650	1850	1950	2100	2750	3300
pul	Grab Tensile Strength (MD)	ASTM D 4632	N	190	250	300	400	470	600	800	930	1000	1150	1200	1500	1800	2100
	Trapezoidal Tear Strength	ASTM D 4533	N	100	130	150	230	320	410	520	550	850	900	950	1100	1450	1650
æ	Thickness	ASTM D 5199	mm	1.4	1.6	1.8	1.8	2.3	2.5	3.2	3.5	3.8	4.2	4.5	5.2	6.5	8.5
hysic	Mass Per Unit Area	ASTM D 5261	g/m2	100	120	140	150	200	250	300	350	400	450	500	600	800	1000
•	Roll Size (W x L)	•	m	2.8x100	2.8x100	5.6x200	5.6x200	5.6x150	5.6x150	5.8x100	5.8x100	5.8x100	5.8x100	5.8x50	5.8x50	5.8x50	6x50

(Tolerance Allowed +/- 10 % : Thickness, Area Weight, Tensile Strength, Elongation @ max & Tear Strength)

ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)

1ST STEP: POLYURETHANE FOAM

2ND STEP: RUBBERIZED COATING

3RD STEP: SEPARATION LAYER

<u>4thSTEP: ANGLE FILLET & PROTECTION</u> <u>SCREED</u>

 $5^{\ensuremath{^{\rm TH}}}$ STEP: WEATHER COATING& JOINT PU SEALANT ALONG WITH BACKING ROD



CERTIFICATE OF PRODUCT CONFORMITY

Concrete Production and Delivery Facilities

Dubai Central Laboratory Department (DCLD) of Dubai Municipality, hereby attests that :

AL AZZANI READY MIX Plants #01. #02 & #03

P. O. Box 52846 Al Quoz Industrial Area 3, Dubai, U.A.E.

(with production and delivery facilities as given in the attached Scope of Certification)

has been assessed and found in conformity with the requirements of Dubai Municipality Standard Specifications DMS 026 "Technical Requirements for the Operation of Ready Mixed Concrete Plants" and the relevant Specific Rules.

Accordingly, DCLD hereby authorizes the above manufacturer to use the DCL Conformity Mark to indicate conformance with the requirements of the certification scheme.



for / ENGR. AMIN AHMED AMIN Director, Dubai Central Laboratory Department

Dubai Municipality



Certificate No: CL16020339 Valid Until: 05 March 2019



Current issue Date: 06 March 2018 Original issue Date: 06 March 2016

F-IC-2050 REV 5

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ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



COMBO ROOF SYSTEM (MULTILAYER ROOFING SYSTEM)

1st STEP: POLYURETHANE FOAM

2ndSTEP: RUBBERIZED COATING

3rd STEP: SEPARATION LAYER

4th STEP: ANGLE FILLET & PROTECTION SCREED

5th STEP: CEMENTATIOUS COATING & JOINT PUSEALANT ALONG WITH BACKING ROD



CERTIFICATE OF PRODUCT CONFORMITY





Dubai Central Laboratory Department (DCLD) of Dubai Municipality,

hereby attests that the product(s)

LOW EMITTING MATERIALS (COATINGS, SEALANTS & ADHESIVES)

(Details as per the attached Scope of Certification)

manufactured by:

DUBAI ADHESIVE MATERIAL FACTORY LLC

Industrial Area No. 17, Sharjah, U.A.E.

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

2017 AL SA'FAT DUBAI GREEN BUILDING EVALUATION SYSTEM

Accordingly, OCLD hereby authorizes the above manufacturer

to affix the DCL Product Conformity Mark to the above-mentioned product(s).

for / ENGR, AMIN AHMED AMIN

Director, Dubai Central Laboratory Department

Dubai Municipality

Verify:



Certificate No: CL17020474 Valid Until: 09 July 2019



Current issue Date: 10 July 2018 Original Issue Date: 10 July 2017

DM-DCLD-F-IC-2031 REV 13

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SCOPE OF CERTIFICATION

FOR CERTIFICATE NO. CL17020474

Certificate Issued To

DUBAI ADHESIVE MATERIAL FACTORY LLC.

Applicable Standard Specification: Applicable Specific Rules: Industrial Area No. 17, Sharjah, UAE 2017 Al Sa'fat Dubai Green Building Evaluation System RD-DP21-2180-(IC) Specific Rules for Certification of Low Emitting Materials (Paints, Coatings, Adhesives, Sealants) As per the 2017 Al Sa'fat Dubai Green Building Evaluation System.

S/N	Product Description	Brand Name	Product Details
		DEUTHANE TOP COAT – GRAY	Water Base Coatings for Exterior Application (Topcoat for Combo Roof System) VOC (GBRS limit is max.140 g/l) SRI Class 2 (29<78) - "Can be Used in 75 - 100% of surface to be coated – Sloped Roof" LRV =45% (min) *SRI and LRV (See Note 3)
1	One-pack performance coatings (Sub-category 9)	DEUTHANE TOP COAT – WHITE RICHPROOF 5000	Water Base Coatings for Exterior Application (Topcoat for Combo Roof System) VOC (GBRS limit is max.140 g/l) SRI =78 (min) {SRI Class 1 as per Annex B of RD- DP21-2180(IC)} LRV =45% (min) *SRI and LRV (See Note 3) Water Base Coatings for Exterior Application (Acrylic Coating for Waterproofing)
		DEUTHANE BLK-PU	VOC (GBRS limit is max.140 g/l) Water Base Coatings for Exterior Application (Waterproofing for Wet Areas) VOC (GBRS limit is max.140 g/l)
2	Two Pack Reactive Performance Coating for Specific End Use such as Floors (Sub-category 10)	DEUCRETE CWP	Water Base Coatings for Exterior Application (WATERPROOFING FOR WET AREAS) VOC (GBRS limit is max.140 g/l)





SCOPE OF CERTIFICATION

FOR CERTIFICATE NO. CL17020474

S/N	Product Description	Brand Name	Product Details	
			Water Base Adhesives	
			for Specific Application	
		DEUCUAT 30-36	(HVAC LAGGING ADHESIVES)	
			VOC (GBRS limit is max. 80 g/l)	
			Water Base Adhesives	
		CRAYCOAT 30-36	for Specific Application	
			(HVAC LAGGING ADHESIVES)	
			VOC (GBRS limit is max. 80 g/l)	
			Water Base Adhesives	
			for Specific Application	
		DEUCOAT 30-36 AF	(HVAC ANTIFUNGAL LAGGING ADHESIVES)	
			VOC (GBRS limit is max. 80 g/l)	
			Water Base Adhesives	
3	ADHESIVES - Fiberglass		for Specific Application	
		CRAYCOAT 30-36 AF	(HVAC ANTIFUNGAL LAGGING ADHESIVES)	
			VOC (GBRS limit is max. 80 g/l)	
		DEUCOAT 60-95	Water Base Adhesives	
			for Specific Application	
			(VAPOR BARRIER CANVAS COATING)	
			VOC (GBRS limit is max. 80 g/l)	
			Water Base Adhesives	
			for Specific Application	
		DEUCUAT 65-70	(WEATHERPROOF HVAC COATING)	
			VOC (GBRS limit is max. 80 g/l)	
		DEUCOAT 30-80	Water Base Adhesives	
			for Specific Application	
			(WATERPROOF HVAC COATING ADHESIVE)	
			VOC (GBRS limit is max. 80 g/l)	
	SEALANT - Architectural		Water Base Sealant	
			for Specific Application	
4		DEUSEAL 32-17 (GRAY)	(ACRYLIC DUCT SEALANT)	
			VOC (GBRS limit is max.250 g/l)	





DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020474

NOTE 1: This document forms part of the Certificate of Product Conformity bearing the same certificate number. NOTE 2: The above product shall bear the DCL Conformity Mark.

NOTE 3*: For colors/Types not covered by the Scope, SRI and LRV shall be tested and classified based on the application of the product in the construction site to ensure that it meets the requirements of the DM-GBRS.

SRI Class 1 (> 78) – "Can be Used in 75 - 100% of surface to be coated – Sloped or Flat Roof"

SRI Class 2 (29<78) - "Can be Used in 75 - 100% of surface to be coated – Sloped Roof"

SRI Class 3 (< 29 or untested) – "Can be Used in 0 – 25% of surface to be coated – Sloped or Flat Roof provided the remaining area is Class 1 or 2"

LRV Class 1 (=>45) - "Can be used in 75-100% of surface to be /painted/coated"

LRV Class 2 (<45 or untested) – "Can be used in 0-25% of surface to be painted/coated provided the remaining area is Class 1".

Original Issue Date 10 July 2018 Current Issue Date 10 July 2019 Valid Until 09 July 2020

ARIF HUSAIN AL MARZOOQI Head of Products Conformity Assessment Section Dubai Central Laboratory Department





DEUSEAL 32 17

(Construction Joint Sealant)

DESCRIPTION

DEUSEAL 32 17 is a moisture-curing, single component, non-sog elastomeric sealant. It is highly resilient and has excellent recovery characteristics. It can function under wide range of temperatures.

ADVANTAGES

- Easy to use
- Easy to extrude
-) Short out off string
- Bubble free curing
- Excellent adhesion to different construction materials
- Excellent weathering and ageing properties
- Can be over painted atter auring
-) Excellent resistance to chemicals micro organisms

APPLICATION

Used in sealing movement joints in precast concrete construction, balcony parapets, bridge culverts, retaining walls, etc. for caulking joints around windows, doors, skirting, walls and floor joints.

Surface preparation: all joints must be absolutely clean. For concrete, sand blasting is recommended. All curing compounds, caulks, grease, water proofing compounds etc. must be removed .For non porous surfaces such as glass, metal etc cleaning with M.E.K or Toluene is recommended. Polyethylene rad or polyurethone foam is recommended as a joint filler and back up material. Fillers treated with bituminous products, grease or all should not be used. Where present they must be removed or separated by vinyl tape or polyethylene film.

Tel.: +971 6 5349 708 Fax : +971 6 534 9709 P.O. Box: 1463, Sharjah - U.A.E. E-mail:sales@dubaiadhesive.com



Min. joint

Joint depth

width



30mm

15mm

Application: apply by caulking gun, hand or pressure type bulk sealant can be applied by pumping equipment. Press firmly into joint to assure good contact and finish with a trowel or putty knife.

Consumption / Joint: The joint width must be designed to suit the movement capability of the sealant. In General the joint width must be > 10 mm and < 35 mm.

A width to depth ratio of $\sim 2:1$ must be maintained.

Joint distance	2 m	2-3.5m	3.5-5m	5-6.5m	6.5-8m
Design joint width	15mm	20mm	25mm	30mm	35mm

20mm

12mm

25mm

15mm

Standard design dimensions for concrete elements as per DIN 18 540 /table 3:

Minimum joint width for perimeter joints around windows: 10 mm

15mm

10mm

All joints must be properly designed and dimensioned by the specifier and the main contractor in accordance with the relevant standards, because changes are not usually feasible ofter construction. The basis for calculation of the necessary joint width is the technical values of the joint sealant and the adjacent building materials, plus the exposure of the building, its method of construction and its dimensions

THEORITICAL COVERAGE

10mm

8mm

Joint width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint depth	8 mm	8 mm	10 mm	12 mm	15 mm

Joint length / 600 ml ~ 7.5 m ~ 4.5 m ~ 2.5 m ~ 1.6 m ~ 1.3 m

Joint width	10mm	15mm	20mm	25mm	30mm
Joint depth	8mm	8mm	10mm	12mm	15mm
Joint length / 600 ml	~ 7.5 m	~ 4.5 m	~ 2.5 m	~ 1.6 m	~ 1.3 m

Tel.: +971 6 5349 708 Fax : +971 6 534 9709 P.O. Box: 1463, Sharjah - U.A.E. E-mail:sales@dubaiadhesive.com





STORAGE & SHELF LIFE

08 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

TECHNICAL SPECIFICATIONS

Consistency	Smooth and pasty		
Color	Grey, White, and other colors available on request.		
Skin formation	~ 60 minutes (+23°C / 50% r.h.)		
Curing rate	~ 1 mm/24 hours (+23°C / 50% r.h.)		
Movement Capability	25%		
Specific Gravity	1.36		
Joint dimensions	Min. width = 10 mm / max. width = 35 mm		
Sag flow	0 mm, very good		
Service temperature	-40°C to +70°C		
Tear strength	~ 6 N/mm (+23°C / 50% r.h.)		
Shore A Hardness	~ 30 after 28 days (+23°C / 50% r.h.)		
E- Modulus	~ 0.4 N/mm2 at 100% elongation (+23°C / 50% r.h.)		
Elongation at break	~ 700% (+23°C / 50% r.h.)		
Elastic recovery	> 70% (+23°C / 50% r.h.)		

Tel.: +971 6 5349 708 Fax : +971 6 534 9709 P.O. Box: 1463, Sharjah - U.A.E. E-mail:sales@dubaiadhesive.com




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NOTE

This data is provided in the belief that is accurate within generally accepted standards and is provided for the information of qualified personnel. It does not constitute an offer by the manufacturer. Nor does the manufacturer warrant or guarantee its accuracy or completeness in describing the performance or suitability of the various products. The users therefore should make their own determination in using the product of the data contained herein for any application.

> Tel.: +971 6 5349 708 Fax : +971 6 534 9709 P.O. Box: 1463, Sharjah - U.A.E. E-mail:sales@dubaiadhesive.com

ELASTOTHANE construction products PU'BASED NON-TOXIC WATERPROOF COATING

ELASTOTHANE is a single component polyurethane base elastomeric coating. The complex blend of flexible urethane polymers produces highly flexible, weather resistant and impervious coating that has excellent waterproofing properties. Once cured the Elastothane film is non-toxic, recommended for application inside potable water tanks also.

USES

Recommended for waterproofing of Roof, terraces, balconies Reservoirs, swimming pools and potable water tanks Building facades

FEATURES

- Single component and cold application.
- Excellent UV resistant.
- Highly flexible
- Carbonation barrier
- Suitable for application over cementitious and bituminous surfaces
- Micro porous and breathable
- Seamless and 100 % bonded to surface
- Hygienic, Non toxic and non flammable
- Eco friendly

•

- Available in a range of colors
- Extremely low VOC < 50 g / kg

PRODUCT CHARACTERISTICS

- Appearance : Semi viscous
 - Sp. Gr. : 1.25 +/- 0.05
- Elongation : 200 % Approx. (ASTM D 412)
- Touch dry : Approx. Two hour depending upon climatic Conditions.
- Water penetration : @ 5 bars BS EN 12390 part 8: 2000

Controlled sample: 12mmSample coated with: NilElastothane: NilNon – Toxicity Test: Pass

Colors: White / Light grey (Other colors on request)

SURFACE PREPARATION

Surface should be clean, sound and free from all contaminants such as grease, oil algae, dust etc.Concrete surface should be fully cured and free from laitance, mould release oil and curing compound. High pressure water jetting may be deemed necessary for heavily contaminated surfaces.

PRIMING

Generally priming is not necessary on non – dusty surfaces however; if the surface is dusty and / or highly absorbent a priming coat is recommended. Priming may be carried out by diluting Elastothane with water in the ratio of 1: 1 and applied @ $4 - 5 M^2 / kg$.

APPLICATION

Apply first coat of Elastothane over the prepared / primed surface @ 2 m^2 / kg by roller, brush or airless spray. Leave to dry for at 4-6 hours and then apply the second (final) coat at the same rate as first one. Leave to dry for at least 24 hours before carrying out flood test.

N.B.: It is recommended to re – enforce area around pipe openings and / or over cracks with flexible fiber mash between the two coats of Elastothane.

FALCON CHEMICALS L.L.C. P0.6ox 2924 - Dubai., Tel: 00971 4 8801444/8801818 (Fax) Wet: www.falconchemicals.com, Email: inquiry@falconchemicals.com

ELASTOTHANE PU BASED NON-TOXIC WATERPROOF COATING

DRYING / CURING

Elastothane usually be touch dry within 2 hours of application. However, no foot traffic should be allowed until the coating is fully dry that may take 24 hours or little more depending upon the climatic and substrate conditions.

LIMITATION

Do not apply when the temperature is below 5° C or rain is immanent.

COVERAGE

Approximately $2m^2/Kg$. However actual coverage will depend upon site conditions and thickness of coat.

PACKING

20 Kg. Pail

STORAGE/SHELF LIFE

Keep away from direct sunlight/moisture and store under normal warehouse conditions. The shelf life of the product is 12 months from the date of manufacturing provided it is stored in factory sealed packing.

HEALTH AND SAFETY

Avoid contact with skin. Do not inhale. Avoid inhalation of dust. In case of eye contact, wash thoroughly with water, and seek medical advice immediately.

TECHNICAL SERVICES

Technical assistance and information is available by calling Falcon Chemicals (L.L.C.) on specific application.

DISCLAIMER

This leaflet is a guide for the use of the product concerned. The information given is in accordance with latest technical developments. However, we do not accept liability/responsibility for any work carried out with our materials, as we have no control over the method of application used or the condition of site involved.

constructionproducts

ISSUE DATE: JANUARY 2013

This technical specification supercedes all previous data sheets.

FALCON CHEMICALS L.L.C. P.0.Box 2924 - Dubai., Tel: 00971 4 8801444/8801818 (Fax) Web: www.falconchemicals.com, Email: inquiry@falconchemicals.com

An ISO 9001 & ISO14001 Certified Company



CERTIFICATE OF PRODUCT CONFORMITY



Dubai Central Laboratory Department (DCLD) of Dubai Municipality,

hereby attests that the product(s)

LOW EMITTING MATERIALS (PAINTS, COATINGS, SEALANTS & ADHESIVES)

(Details as per the attached Scope of Certification)

manufactured by:

XCHEM INTERNATIONAL LLC RAK Investment Authority, RAK, UAE

have been assessed in accordance with DCLD Document Ref. No. RD-DP21-2001 (JC) "General Rules for DM third party product certification system.

through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

2010 DUBAI GREEN BUILDING REGULATIONS AND SPECIFICATIONS (GBRS)

Accordingly, OCLD hereby authorizes the above manufacturer

to affix the DCL Product Conformity Mark to the above-mentioned product(s).



for / ENGR, AMIN AHMED AMIN

Director, Dubai Central Laboratory Department

Dubai Municipality

Verify:



DAC

Certificate No: CL17020433 Valid Until: 28 February 2019



Current Issue Date: 01 March 2018 Original Issue Date: 01 March 2017

F-IC-2031 REV 11

CB-003-PRD The attached Scope of Cortification bearing the same Lertificate ino. forms an integral part of this Cortificate This Certificate is an obstroam document, subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.



ENIROOF SPR

Туре	Water Proofing Membrane
Description	ENIROOF SPR is a single component; special synthetic resin based waterproof coating. It is an ideal coating for use on vertical as well as horizontal surfaces because of its excellent durability, flexibility and thixotropic nature. It is environmentally safe, very economical and specially formulated to give long lasting maintenance free and superior waterproofing protection. Due to its white color, it has excellent UV Resistance.
Recommended Use	 ENIROOF SPR is ideal for Waterproofing of roofs ranging from Asphalt Asbestos Cement Concrete Terrazzo tiles Suitable for both horizontal and inclined structures Waterproofing membrane for Traditional and Inversed flat roofing system
Features	Excellent Water Resistance Excellent Puncture Resistance Excellent UV Resistance Excellent Chemical Resistant Antibacterial and Antifungal Doesn't get discolored with age
Form Supplied	Thixotropic Paste (White, Grey, Beige & Maroon Color)
Specification	

Property	Value	Unit of Measurement	Method
Specific Gravity Pull Off Test Adhesion Strength Tensile Strength Solid Content Viscosity (SP6, RPM20)	1.35±0.15 2.704 60-70 >1.80 64±3 30000-40000	Kg/Lt. N/ mm ² N/ mm ² % cPs	ASTM D 1475-98 BS 1881 ASTM D 903-98 ASTM D 412- 98 a ASTM D 1644-01 ASTM D 2196
Flash Point	>100	٦°	ASTM D 93

Edition: 2014-07:01: ENIROOF SPR XCHEM INTERNATIONAL LLC





<0.005 0.97	g/Lt. g/h-m ²	ASTM D 2369-98 ASTM E 96
24	Hours	ASTM D 1640
>250	%	ASTM D 2370 -98
	White Thixotropic Paste	
	55±5 (ASTM D 2240 -05)	
	Flexible. Tough	
	Excellent	
	Excellent	
	Approx 1 mm wet film	
	Almost Zero (ASTM – A 3245)
	+5°C)
	Approx - 30°C to 100°C	
ENIRO (horizo The me Specia Conditi compa clean, fixed a Specia	OF SPR waterproof membra ntal and vertical) but also to w embrane can be applied for all <i>I Notes:</i> ion of substrate: Concrete cted and at least 28 days old, dry and free from dust. Wood nd be cleaned, dry and free fro <i>I primer is required for metal a</i>	anes can be applied not only to concrete ood and metal surfaces. roofs to any extent of slope. and cementations substrate to be well with toweled finish. The surface must be panels or metal sheeting should be solidly om dust or rust and oil residue. and wood surfaces.
Asphal load b substra The ap and rea in case Low te curing abrasic traffic, slabs, o	t roof surfaces to be coated w earing. Application when ra tes. plication at temperatures belo duced elasticity as well as por of thick coat. mperatures and high atmosph rate, and vice versa. ENIRO on or light pedestrian traffic. H high heeled shoes and furnitu etc. in such cases.	ith SPR must be at least one year old and in threatens should be avoided for all w 5oC will result incomplete film formation ssibility of formation of cracks particularly heric humidity (such as fog) will slow down OF SPR membranes are resistant to the lowever, they can be damaged by heavy are, and thus should be protected by tiles,
	<0.005 0.97 24 >250 ENIRO (horizo The me Specia Conditi compa clean, fixed a. Specia Conditi compa clean, fixed clean clean, fixed clean, fixe	 <0.005 g/Lt. 0.97 g/h-m² 24 Hours >250 % White Thixotropic Paste 55±5 (ASTM D 2240 -05) Excellent Flexible, Tough Excellent Approx 1 mm wet film Approx 1 mm wet film Approx 48 Hrs Almost Zero (ASTM – A 3245 +5°C Approx - 30°C to 100°C ENIROOF SPR waterproof membra (horizontal and vertical) but also to w The membrane can be applied for all Special Notes: Condition of substrate: Concrete compacted and at least 28 days old, clean, dry and free from dust. Wood fixed and be cleaned, dry and free from Special primer is required for metal as ubstrates. The application at temperatures belo and reduced elasticity as well as po in case of thick coat. Low temperatures and high atmosph curing rate, and vice versa. ENIRO abrasion or light pedestrian traffic. H traffic, high heeled shoes and furnitu slabs, etc. in such cases.

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Application Procedure	WATERPROOFING CONVENTIONAL ROOFS
	Asphalt surfaces : Old asphalt surfaces and asphalt roofing felt after cleaning must be primed with ENIROOF SPR diluted with 20% sweet water. This would strengthen the weathered surfaces. Blisters in asphalt roofing felt must be cut open cross wise, dried and bonded with suitable adhesive. After complete drying of the primer and bonded areas, ENIROOF SPR is applied with brush, roller or spray gun. A brush with horse hair bristles will provide almost texture-free, smooth surfaces. For spraying, ENIROOF SPR may be diluted with a little water. Higher dilution would lead to sedimentation and blocking of spray gun.
	Terrazzo Tile Roofs : Damaged or washed-out joints should be cleaned and repaired or re-grouted. After thorough cleaning to remove all loose material, after the primer coat is completely dried, then make two coats of ENIROOF SPR as previously described.
	Flat roofs with zero pitch : Flat roofs without pitch, so-called zero pitch roofs, are roof surfaces where puddles may develop and which therefore pose special problems. Puddles after curing cannot be rectified which may necessitate redoing the entire waterproofing. Hence dry weather condition is a prerequisite to help satisfactory curing and puddle free coating. Broom with hard brisfles (example of stiff plasfic) should naturally not be used for cleaning since in unfavorable conditions they may cause damage to the coating.
	Metal Roofs: Iron or galvanized iron: remove loose paint with a wire brush. De-rust corroded areas and prime with suitable metal primers.
	Zinc or aluminum: remove loose paint with a wire brush. Remove corrosion if present and prime with solvent primer. Thoroughly remove moss and mildew with wire brush subsequently clean the surface with a broom. After thorough drying of the primer, application of ENIROOF SPR is carried out as Previously mentioned.
	Concrete Roofs: After cleaning the roof surfaces, prime with 20% sweet water diluted ENIROOF SPR. After complete drying of the primer, proceed as described under asphalt roof surfaces to apply ENIROOF SPR
Application of Membrane	Standard procedures to be followed for cleaning, the substrate and primer coat application. After complete drying of the primer coat, give two coats of ENIROOF SPR at the rate of 0.850 kg. Per sq. mtr. Making a total of 1.5 to 2 kg. Per sq. mtr. Including the primer. Curing for 48 hours is adequate at normal temperatures. However at low temperature conditions curing time to be extended accordingly and ensure complete curing before laying thermal insulation and mechanical protection.
Thermal Insulation	100% closed cellular structured, jointed extruded polystyrene panels are placed over the ENIROOF SPR continuous waterproof membrane. The thickness to be determined by the degree of insulation required.
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Mechanical Protection	Roofs not subject to traffic : Fine mesh nylon sheet should be placed over the insulation before covering with washed gravel (15/30 mm gauge) to a minimal thickness of 5 cm. Where the thickness of the insulation is more than 5 cm. apply gravel to the same thickness as the insulation. Roofs subject to traffic : Protection by prefabricated concrete slabs, using wedges made from small squares of ROOFMATE 20 X 20 cm to adjust levels and allow rain water to drain under the protection. Protection by in-situ concrete screed: a 'KRAFT' paper protection should be placed over the insulation and topped with a concrete screed of 4 to 5 cm. thickness.
Coverage	Coverage depends upon the nature of the surface to be applied. But on average, smooth surface will give First Coat - 350 gm/sq.mtr. & 300 gm/sq.mtr. (Second coat) Two coats will give 1/2 mm dry film thickness.
Packaging	5Kg, 20 Kg & 200 Kg (Plastic & Metal)
Storage	SHELF LIFE up to eighteen month from manufacturing date, if stored below 25°C Store under cover, protect from direct sunlight and high temperature (> 300°C) Failure to comply with the recommended storage conditioning may result in premature deterioration of the product or packaging.
Cleaning	Clean with warm water and soap when wet. Mineral spirit, when dry.
Health & Safety	As with all chemicals, caution should always be exercised.

This Information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided - especially that contained in our safety data and technical information sheets - and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility.

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ALWARDA ALSHAM WATERPROOFING AND INSULATION LLC



WET AREA WATERPROOFING



IIIII TERRACO

WEATHERCOA T GP ELASTOMERIC WATERPROOFING

OVERVIEW

Weathercoat GP is a high quality, versatile, permanent waterproofing system for roofs, facades, wet rooms and water retaining structures The system will adhere to new and old surfaces of precast & in -situ concrete . Weathercoat GP has long -life flexibility and is ideally suited

PRODUCT GRADES/CODES		
Resin	66210	
Powder Grey	76110	
Powder White 76115		

ODUCT CDADEC

for use in areas with extreme climatic conditions. It is applied by brush or spray and after drying can be walked upon uncovered. After application the Weathercoat GP system has high resistance to atmospheric pollution and UV light.

PROPERTIES

Weathercoat GP is supplied as a two component, powder (cement based) and resin (acrylic based) system, to be mixed on site. Different mixing ratios will produce compounds of different degrees of flexibility, suitable for different purposes.

- Permanent waterproofing
- Abrasion resistant
- Non -toxic , ideal for water tanks
- Weather resistant
- High adhesion power
- Highly flexible
- Vapour permeable
- Cement mortars adhere to it
- Bridges cracks in substrates

AREA OF USE

For waterproofing most building surfaces e.g. roofs, facades, foundations, retaining walls, swimming pools, planters, wet room floors, water tanks, etc.

PREPARATION OF SURFACE

Ensure all dirt and foreign matter is cleaned off the areas to be coated. Remove any ridges or form oil. Dusty or flaking surfaces must be cleaned thoroughly, then primed with Penetrating Primer Clear or Terrabond A (diluted 1:3 with water)

APPLICATION CONDITIONS & PROCEDURE

Application Condition:

For application of Weathercoat GP, optimum application temperature is between $10-30^{\circ}$ C. Do not apply below 5° C or if lower temperatures are expected within the following 24 hours after application. Do not apply on frozen surfaces. Do not apply if the rain is expected within 24 hours of application.

Application Procedure:

Mix the components in the ratios shown in the table below. Add powder to resign and use a high speed mixer or power agitator until the mix is homogenous. Apply using brush, roller or spray . Leave minimum 12 hours between coats for drying at 2 0°C. Mixed Weathercoat GP must be used within 1 hour of mixing (do not re -temper with additional water).

Mix Proportions	5		
	Waterproof	Waterproof	Waterproof
Uses	Flexible	Flexible	Flexible
	Coating	Slurry	Screed
Weathercoat	1	1	1
GP Resin	I	I	I
Weathercoat	r	2	4
GP Powder	Z	2	4
Water	-	0-0.1	0.1 -0.2

CURING & CLEANING OF TOOLS

Curing:

Curing time required for Weathercoat GP will depend on temperature and relative humidity conditions on site. Conditions in the range of 20°C and 50% R.H will require a minimum of 14 days to ensure that the product has cured enough to be in permanent contact with water. Applications made at lower temperatures or sites without ventilation will require longer curing periods. Wash the properly applied & cured surface of Weathercoat GP with water before putting in to service (in permanent contact with water).

Cleaning of tools:

Tools may be cleaned with water, ensure this is done within one hour of mixing of materials.

HEALTH & SAFETY

Avoid prolonged contact with eyes and skin. For detailed information refer to relevant material safety data sheet.

PACKAGING & STORAGE

Weathercoat GP Resin is supplied in 5kg and 20kg pails. Weathercoat GP Powder is supplied in 15kg and 25kg paper bags.

Store material in a clean dry area protected from high humidity, moisture, direct sunlight and extreme heat and cold. Unopened packs can be stored for 12 months. Use oldest material first.

IIIII TERRACO

TECHNICAL DATA

Product	Two components cement acrylic elastomeric waterproofing system.
Binders	Hydraulic (Weathercoat GP Powder) and organic (Weathercoat GP Resin).
Fillers	Crushed, precisely graded filler (Weathercoat GP Powder).
Colour	Grey and natural white (mixed Weathercoat GP).
Dilution	With water if required.
Consumption	1.5 - 2.0 kg/m ² for 1mm thick layer (mixed Weathercoat GP).
Drying Time	6 hours @ 20 °C & 50%RH (mixed Weathercoat GP). Recoating time 12 hours.
Specific Gravity	1.70 ± 0.05 (mixed Weathercoat GP , 1 resin: 3 powder).
Packaging	WeathercoatGPResin: 5kg and 20kgjerricans.WeathercoatGPPowder:15kg and25kg paperbags.WeathercoatGPKit: 20kg pail (5kg resin(jerrican) + 15kg powder (bag)).
Storage	12 months in original unopened packs .

TERRACO offers a comprehensive range of products and services for most concrete and finishing needs." Please contact the TERRACO Technical Service Department or your local TERRACO agent for further information, samples, demonstrations and instructor services. The information given in this leaflet is based upon laboratory research, as well as extensive field work and a pplication. All products are sold subject to standard conditions of sale which are available on request. This information is based on TERRACO's present state of knowledge and is intended to provide general information on TERRACO's products and their method s of use. The prospective user is recommended to determine the suitability of TERRACO's suggestions and products before adopting them on a commercial scale.

For technical enquiries please contact your nearest Terraco representative:

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SUB STRUCTURE MEMBRANE SYSTEM





FIELDS OF APPLICATION:

- **o** CONCRETE FOUNDATIONS & FOOTING
- PILE HEAD TREATMENT
- RETAINING STRUCTURE
- **o BASEMENTS**









Super Structure Membrane System



FIELDS OF APPLICATION:

- o ALL WET AREAS
- TERRACE AND BALCONIES
- INVERTED ROOF AND PARAPET
- **o** DRAIN PIPE DRESSING





MEMBRANE ROOF SYSTEM

APPLICATIONS:

- ✤ LIGHT-WEIGHT CONCRETE
- PRIMER
- ✤ MEMBRANE
- SEPARATION LAYER
- ✤ POLYSTYRENE
- PROTECTION LAYER

FIELDS OF APPLICATION:

- ✤ INVERTED ROOF AND PARAPET
- ✤ TERRACE AND BALCONIES







Extend your basement

BELIEVES that turning unused dingy water damaged or even flooded basements into warm, inviting, useable living space can be easily achieved firstly with our services. With cellars and basements that are blow ground, there is always a risk of water netrating through the walls and/or the floor. unconverted cellar, this an rarely In evaporates fully. Traditional damp proof membranes trap moisture and hold up work while the relative humidity of the concrete takes time to drop.

What we can assure you it to provide the best solutions for waterproofing and insulation. Whether you are a new or existing clint, whether it's new built, remedial, retrofit underground extension (new basement/cellar or refurnishment We provid waterproofing solution for basements and buildings. in soil retaining situations such as basements and vaults etc. the membrane selection depends on the required finish and flow rate if applicable. All membrane junctions, fixing points service entries and other protrusions. Are seaalted. Where active ground water is evident expected drainage of one from or another should be incorporated into the specification. Our technical staff are available to solve the problems in this respect. **FLOORS:**

As well as being complete waterproofing and damp proof system leads itself to a variety of different finishes which include.

- 01 Conventional screed
- 02 thin layer fast drying screeds
- 03 epoxy floor coating

Insulation can also be used in conjunction with the system where required.





MS-CIV-STR-018 - WATERPROOFING - ALWARDA ALSHAM WATERPPROOFINED AND AN AMATERIAL DD/IL



KDI-AR-PQ-015 - ALWARDA ALSHAM WATERPROOFING AND INSULATIONRM 28 WOUTEROR COURM ITAL









Epoxy Coating



Epoxy paint is a 2-part coating, consisting of a catalyst and a resin. When combined, these two components harden into a durable coating, able to withstand a great amount of duress. Epoxy paint is ideal for concrete surfaces, such as in basements and garages; it can also be used to coat wood floors.

The top 5 benefits of epoxy flooring

Epoxy flooring is chosen not only for its durability and versatility, but also its decorative qualities. Epoxy flooring companies in Dubai have applied it to the hotels, hospitals, garages etc. It comes in high gloss, matte, colours, and can have inclusions like quartz flakes to really make it pop. Below is a (non-exhaustive) list of the benefits of epoxy flooring.

Durability	Chemical and water resistance	Affordability	Easy to clean	Safety
Epoxy is renowned for its durability. Once cured it can last for decades, making it one of the longest-lasting flooring solutions.	Epoxy resin flooring protects the underlying substrate from moisture, chemicals, oils, stains, and the damage that would result. It is resistant to most chemicals which is why it is so popular for garages, carparks, and industrial flooring.	The cheapest of the resin flooring systems, epoxy is cheaper by material costs and, because it can be applied directly to substrates, application costs.	Seamless, smooth, and chemically resistant, epoxy is not only easy to clean it is also hygienic which is why it finds so many applications in the healthcare and food preparation sectors. It can also be given antimicrobial properties.	As well as providing a seamless and abrasion resistant surface, epoxy can be made to be anti- slip, and the addition of a shiny epoxy flooring will increase the brightness of a space by 200% due to its reflective quality.



Industrial Flooring

Car Parking Protection

Garage Floor Protection

Epoxy Flooring UAE

A durable, long-lasting, beautiful solution with epoxy flooring

Epoxy flooring is the standard flooring solution for industrial, residential, and commercial flooring the world over. Epoxy flooring has a host of benefits including affordability, versatility, and durability. In the UAE, epoxy flooring has been used for projects ranging from the Mall of the Emirates in Dubai to Abu Dhabi airport, as well as countless kitchens, bathrooms, carparks, and more.

Applying an epoxy resin flooring in the UAE

Application of epoxy resin flooring may be easy, but it faces some difficulties, particularly in the hot and sunny climate of the Middle East. With a summer average of around 40°C, epoxy flooring suppliers in Dubai would know that there are extra considerations needed for a successful and effective epoxy flooring.



- Epoxy is susceptible to UV radiation which will cause yellowing and chalking.
- For the ideal application, epoxy requires temperatures of around 20°C. In conditions as hot as those found in the UAE, this may require some extra measures for the perfect application.
- Epoxies will soften at temperatures of 60°C and above
- Though a moist substrate may not be an issue for UAE resin flooring, the climate limits the applications of epoxy, requiring interior application free from direct sunlight perfect for carparks, hospitals, and malls.

• If you would like more information or have a project that requires epoxy flooring contractors in the UAE, do not hesitate to get in touch. Our experts are here to help. For resin flooring like epoxy flooring, Dubai to Abu Dhabi and beyond, we can find the coating solution for your project.





Thick and thin floor coating systems

Floor coating serves as thin protective layers on existing floors and as thicker complete flooring systems in the United Arab Emirates. The thin layer floor coatings are usually not thicker than a millimetre, but the complete resin flooring systems may reach up to one centimetre in thickness. The most common resin flooring for concrete on the market is epoxy-based resin floor coatings which comes with unique properties. Wooden floors can also be coated (most commonly with polyurethane).

5 PROS OF FLOOR COATING

- Promotes hygiene: The seamless layer prevents spread and growth of mould, bacteria and fungi.
- Applicable in every sector: There is a suitable floor coating for every environment.
- Decorative: Available in nearly all RAL colours and in finishes from ultra matt to high gloss.
- Functional additives: It is possibly making floors anti slip or fire retardant by using the right additives.
- Cost efficient: Can postpone the need for a new floor, complete floor coating systems are durable and easy to maintain.

Epoxy paint and coatings shine in industrial applications

An epoxy paint is a thermosetting polymer which uses an epoxy resin as its binder. Epoxy coatings usually come in two components which are combined and mixed prior to application. The epoxy resin component when combined with a curing agent or hardener begins the cross-linking process. This creates a very durable surface and provides epoxy paint with its powerful protective properties. Epoxy paint can be formulated in order to achieve certain outcomes, based on the intended end-use. It is hard-wearing, chemical and acid resistant, abrasion resistant, adhesive, easy-to-clean and attractive.

Epoxy paint comes with unbeatable properties

Epoxy paint is used across the coating industry in many sectors and environments. It can be 100% solids, solventbased, or water-based, and all the formulations have excellent physical qualities. It is epoxy's unique properties that make it such a reliable and versatile coating. These include:

Durability	Chemical resistant	Abrasion resistant	Water resistant	Quick drying and easy to apply
Because epoxy is a thermosetting resin as it cures the coating undergoes crosslinking. This means that the epoxy coating is tightly bound together and securely bonded to	Epoxy coating is highly resistant to chemicals, acid, and solvents, making it perfectly suited for industrial uses such as factories, pipelines, and tank linings.	Industrial flooring needs to stand up to foot traffic, vehicular traffic, mechanical loads and more. Epoxy's abrasion resistance provides the required durability for everything from	Epoxy is used for anti-corrosion measures and waterproofing in environments from swimming pools to offshore industrial facilities.	Being quick and easy to apply provides a significant advantage for a coating, as it means shorter downtime and less associated losses.

the substrate,	factories to garage	
providing its	floors.	
powerful durability.		

It is the choice of epoxy and hardener which provides each formulation with its final characteristics, and these are chosen for each specific end use. Some common types of epoxy resin are Bisphenol A, Bisphenol F, and Phenolic Novolac. These vary in viscosity, flexibility, and chemical resistance. There are many co-reactors or hardeners, including polyamide, aliphatic amine, and aromatic amine.

NOVOLAC Epoxy resin (cont'd) Novolak resins are typically cured with 5-15% hexa as the cross-linking agent. The reaction mechanism and reactive intermediates have been studied by **Bisphenol A/Epichlorohydrin Epoxies** classical chemical techniques (3,4) and the results showed that as much as 75% Raw materials (preparation of bisphenol A) of nitrogen is chemically bound. More recent studies of resin cure (50-53) have made use of TGA, DTA, GC, IR, and NMR . They confirm that the cure · Bisphenol A is so called since it is formed from phenol begins with the formation of benzoxazine , progresses through a benzylamine intermediate, and finally forms (hydroxy/diphenylmethanes (DPM). (2 mole) and acetone (1 mole) Acetone «IN the formation of novolacs, substitution in condensation reactions occursimultaneous. In large reaction vessels formaldehyde is metred to a phenol -Phenol catalyst mixture and the rate of addition is controlled depending on the head evolved for safety reasons. When using smaller vessels, even under laboratory conditions, care must be take obecause of exothermic reaction. **BisphenolA** Types of Epoxy Resins **Hipbered F Epoxy Ravity** · Mightened J Players The presented to DOCING, Municosoff Preparent rate رواد to stal a bight on inof pit second [1] 4 Statistics tofice ° FC150



WARRANTEE CERTIFICATE



P.O. Box 235165 Dubai, UAE Tel: 042242452 Email: <u>info@alwardame.com</u>

CERTIFICATE OF WARRANTY

WARRANTY ISSUE DATE	WARRANTY CERTIFICATE NO.

CLIENT/CONTRACTOR NAME:						
CLIENT/CONTRACTOR ADDERSS:						
WARRANTEED PROJECT/JOB:		PROJECT / JOB ADDRESS:				
CONTRACT NO.	PROPOSAL NO.	INVOICE NO. (If Any)	JOB / WORK ORDER NO. (If Any)			

LIMITED LIFETIME WORKMANSHIP WARRANTY

ALWARDA ALSHAM Waterproofing & Insulation LLC warrants to the client/contractor that the Waterproofing done on this project will be free of defects in workmanship. Should a failure occur due to defects in workmanship that may cause leakage or damage, ALWARDA ALSHAM Waterproofing & Insulation LLC will repair such problems by supplying labor for as long as you owe the project. This warranty is valid to the client for 25 year period.

The warranty items are to be repaired only by ALWARDA ALSHAM Waterproofing & Insulation LLC and the customer must notify ALWARA ALSHAM Waterproofing & Insulation LLC within 48 hours after the problem has been discovered.

ALWARDA ALSHAM Waterproofing & Insulation LLC will not be liable for any damage resulting from normal wear and tear, including but not limited to weather, force wind, sandstorm, rain or any other foreign objects. The duration of Company's warranty is determined by the products/chemicals being applied/used and the limited Lifetime Workmanship Warranty is for the same duration.

ALWARDA ALSHAM Waterproofing & Insulation LLC shall not be liable for any incidental, consequential or special damages of any form. This includes damage to the interior or exterior of any building or replacement not authorized in writing or performed by ALWARDA ALSHAM Waterproofing & Insulation LLC.



Qasar Mahmood Managing Director ALWARDA ALSHAM Waterproofing & Insulation LLC



P.O. Box 235165 Dubai, UAE Tel: 042242452 Email: <u>info@alwardame.com</u>

CERTIFICATE OF WARRANTY (For Wet Area)

WARRANTY ISSUE DATE	WARRANTY CERTIFICATE NO.

CLIENT/CONTRACTOR NAME:					
CLIENT/CONTRACTOR ADDERSS:					
WARRANTEED PROJECT/JOB:		PROJECT / JOB ADDRESS:			
CONTRACT NO.	PROPOSAL NO.	INVOICE NO. (If Any)	JOB / WORK ORDER NO. (If Any)		

LIMITED LIFETIME WORKMANSHIP WARRANTY

ALWARDA ALSHAM Waterproofing & Insulation LLC warrants to the client/contractor that the Waterproofing done on this project will be free of defects in workmanship. Should a failure occur due to defects in workmanship that may cause leakage or damage, ALWARDA ALSHAM Waterproofing & Insulation LLC will repair such problems by supplying labor for as long as you owe the project. This warranty is valid to the client for 10 year period.

The warranty items are to be repaired only by ALWARDA ALSHAM Waterproofing & Insulation LLC and the customer must notify ALWARA ALSHAM Waterproofing & Insulation LLC within 48 hours after the problem has been discovered.

ALWARDA ALSHAM Waterproofing & Insulation LLC will not be liable for any damage resulting from normal wear and tear, including but not limited to weather, force wind, sandstorm, rain or any other foreign objects. The duration of Company's warranty is determined by the products/chemicals being applied/used and the limited Lifetime Workmanship Warranty is for the same duration.

ALWARDA ALSHAM Waterproofing & Insulation LLC shall not be liable for any incidental, consequential or special damages of any form. This includes damage to the interior or exterior of any building or replacement not authorized in writing or performed by ALWARDA ALSHAM Waterproofing & Insulation LLC.



Qasar Mahmood Managing Director ALWARDA ALSHAM Waterproofing & Insulation LLC



We recognise that the job is urgent and important, but nothing is so urgent that we cannot take the time to minimise risk and work safely.

Safety Policies

Workplace Health and Safety Policy Statement

Workplace Health and Safety is of critical importance in the planning, organisation and undertaking of our operatibns. t is the policy of Alwardah Alsham to conduct all activities in such a way that the health, safety and wellbeing of workers any others encountered over the course of a given project is not in any way impaired or prejudiced as a result of he actions of our staff or company.

As such, we have developed an Occupational Health and Safety Procedure and Policy manual which is strictly enforced within our company.

Our objectives in the implementation of this Policy specifically include:

- Compliance with all relevant statutory duties, regulations, industry codes and standards, as well as making adequate provision of resources to meet these requirements.
- To provide adequate information, instruction and training for workers and others to increase personal understanding of work, health and safety hazards and to ensure proper supervision and support, including the proper handling of chemicals.
- To ensure that adequate and safe plant and equipment, personal protective equipment and working environments and maintained, including handling of hazardous substances throughout Sign Express's operations.
- To involve workers, suppliers and clients in all work, health and safety matters, and to consult with them in ways to reduce hazards and improve control methodologies.
- To eliminate work related injury and illness and minimise work, health and safety risks throughout our operations.
- To establish ongoing objectives in work, health and safety management as part of an ongoing action plan, and to regularly review its performance and that of its officers and general supervisors against the objectives of this policy.

Alwarda AlshamWaterproo ing recognises that health and safety is both an individual and a shared responsibility of all workers and others involved with the operation of the organisation. In this regard, we emphasise the need to follow and adhere to safe work practices at all times, to ensure that no person is exposed to an uncontrolled health and safety risk for themselves or any other person, and to develop an ever-improving safety culture within our company.

There is no task so important or urgent that it releases an organisation or its employees from their irressponsibility to ensure a safe and healthy work environment for everyone.

Environmental Policy

Alwarda Alsham Waterproo⊠ing is committed to leading the industry in minimising our impact on the environment. We believe that we all share a responsibility to care for and protect the environment in which we operate. We are fully committed to improving our environmental performance across all aspects of our business, and encourage our partners, employees and members of the wider community to join us in this effort.

The key points of our strategy to achieve this are:

The minimisation of waste by evaluating our operations in all areas and ensuring they are as efficient as possible.

The minimisation of toxic emissions.

Active promotion of proper recycling methods both internally and amongst customers and suppliers.

The sourcing and promotion of product ranges that minimise the environmental impact of both production and distribution.

The adoption of the highest environmental standard across all areas of operation, as well as both meeting and exceeding all legislative requirements.

Training of employees in good environmental practices and encouraging active involvement in environmental action.

The continual assessment of our environmental impact to ensure ongoing improvement.

We also have a current contract with Transpacific for the safe and environmentally friendly disposal of all paints and solvents.

It is our firm belief that maintaining a high standard of operation in this area is both a necessity for us

as a manufacturing facility, but also for our clients and the impact their works have on the planet. We

do not compromise in our efforts to reducglobal footprint and we do not believe that sucbommitment to the environment should come as

an additional service. The standard safe production, delivery and disposal of waste is simply part of our day-to-day operation and does not impact upon pricing.

Site Safety and Risk Assessment

Each individual job and work site comes with unique challenges and risks. To ensure full compliance with workplace safety requirements, we conduct thorough site assessments prior to commencing installation.

All installations come with a varying degree of risk, so assessing a site is an important step in our process. It allows our team to identify any potential risks specific to your site which may not be immediately obvious, communicate these potential risks to the right people, and address these issues before they become a real hazard. This can involve a wide range of problem solving techniques, including modifying job components or installation

method, and accounting for additional safety measures and equipment to counteract the problem.

Additionally, no job is undertaken by unqualified personnel, especially jobs requiring specific checks, training or certification. There is no place for shortcuts when safety is at stake,

so if a job requires special inductions, training or certifications, we will assign an already-qualified person, or gain the necessary training for compliance.