

Since 2000



إعمار العالمية للصناعات د.م.

UPVC



إعمار العالمية للصناعات. د.م.

لصناعات الأبواب والشبابيك ال **UPVC** والألومنيوم

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EMAAR.UPVC



EMAAR International was established in 2000 at sharjah, United Arab Emirates. It is considered as one of the most progressive and leading manufacturers of UPVC windows and doors. It serves the Middle east market with top quality products that correspond to the requirements the German standard institutes (DIN). An enviable reputation has been built by its first class quality products and became well established industry in the field of fabrication. with a price concious market, our company is considered to be an entrenched, financially secure and closely to UPVC profile suppliers.

Best materials are being used to fulfil the highest standard of thermal insulation and energy efficiency in gulf countries. We are importing our materials with a warranty of 10 years having the utmost modern production facilities in our factory that was supported by qualified and professional technicians. Moreover, it provides an excellent assurance for best products and services with most cost efficient price to our clients. Currently, we are working on projects around every part of United Arab Emirates and nearby Gulf Countries with most modern villas, buildings and towers.

Having the vision and mission to reach the company's goal has inspired our team to expand in working with UPVC windows, doors, aluminum and glass works. Further more, we provide the most outstanding products and services to achieve the customer's satisfaction. Products are made conforming to affordability, durability and best quality. We value the trust of our customers from point of sales, finished installation and after sales service.

Our esteemed organization believed that the key to success is having a first product that conforms to the requirement of the project to attain the customer's satisfaction.



Company Profile... Growth & developments



Growth :

Our ambitions have never stopped upon the incorporation opinion, yet the development and growth have been one of the important objectives we are always endeavoring to achieve since the inception and till fulfillment of our aims after the great success achieved in our market of business and after execution of numerous projects in the level of the State and with such specifications and high quality. Then we have started to expand our business in order to cover the whole and every Emirate within United Arab Emirates and abroad, particularly the neighbouring Gulf countries.

Development :

"We are producing for your sake"

This has been our motto during our long journey whereas the increase in demand of our customers has been the main factor and the strong motive that has accelerated our means of development and expansion in order to commence another journey through the stages of our development which has included the whole system of production and has met all the local and regional market requirements.

It is true; our development is for the sake of you as you always deserve the best and this is the main aim which we are always looking for.



QUALITY POLICY



Emaar's quality policy is based on **"customer satisfaction"**.

The aim of Emaar is to provide products suitable with the high standards and technical conditions it sets.

In order to maintain customer satisfaction, it is evaluated whether the customer's conditions are met or not, and the changing expectations of the customer, these are announced to the employees, product improvement and certification works are performed. Training courses are organized in order to raise vendor awareness, the smallest dissatisfaction about the product is taken into consideration and reform procedures are carried out.

At Emaar, "happiness of employees" is the most important requirement in order to obtain customer satisfaction. Decisions are made after taking the relevant employees' options and in accordance with the "participation" principle. It is ensured that individuals are equipped with sufficient knowledge and skills to undertake liability and responsibilities relevant to their position. An environment in which everyone adopts their own role and is happy about the work they carry out is targeted. While the responsibility belongs to individuals, group activity is also encouraged, and group success is considered above individual success.

In order for the company to improve its competitive powers within the markets, a "costconscious" attitude is adopted and importance is put on how to achieve savings. In accordance with all these principles, Emaar shows constant effort to reach a better level than it currently stands on.



PRODUCT PROFILE

System name : Wintech UPVC Door, Windows and Shutter Systems

Profile: Emaar International Standard Profile and specification from the manufacturing company

Extrusion Manufacturing Company: Adopen Extrusion Company.



EMAAR INTERNATIONAL is known in terms of technology and security issues, ensuring customer's satisfaction in providing high acclaimed products. Moreover, we are technologically advanced, precision engineered and fully accredited. As a lifestyle choice, EMAAR provides quality products in a variety of modern and traditional styles that meets the client's requirement for energy efficiency, safety and security.

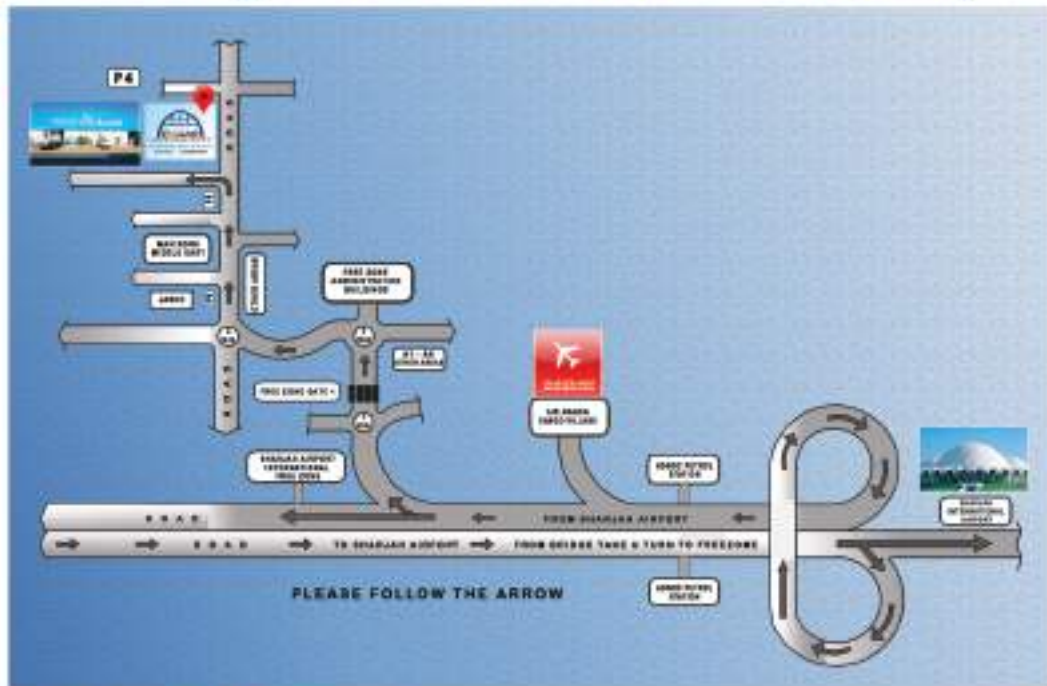
As we have dealt in this industry 17 years, we focused in the importance of good fitting and installation of our products. PVC profiles were taken from one of the most leading extrusion as well as the accessories used in our entire product were supplied by one of the most outstanding manufacturing companies.

EMAAR Windows are not simply a case fitting glass within a frame, there is a complex system called profile. the glass fits within a profile that contributes greatly to the performance benefits of each window. Variety of styles suits every type of property with different frame colors, glazing and opening options. An absolute quality was given and our UPVC profiles hold every relevant quality standard with full accreditation.

EMAAR Door is an extremely important feature of your property. It is designed as per specifications that have passed the standard schemes. We deal with an important design statement with so many variations in style, door & accessories from handles and letterboxes to numbers and knockers. In addition, we have variety combinations of doors from solid colored panels, composites and stained glass for triple sliding patios and french doors. It is made from quality UPVC with steel reinforced frames and fitted with high performance seals and superior security locks.

All EMAAR Products meet the terms of building regulations and offers good thermal performance. Different and relevant features are available to comply with the client's requirements.

Strategic location of our company



Strategic Location of the Company:

In order to remain always near you and in order to reach you in any place your present in, we should have been chosen a suitable location in order to achieve a sort of effective means of communication between both of us in addition to our other entire valuable customer.

one of the most developed factories in the state of sharjah

However, we have established our plant in an area of 50000 sqft. in the freezone of Sharjah International Airport such administrative system with 3 Departments: UPVC, Aluminum & Glass, more production area and with the height level of quality standards in order to always be available for our valuable customers.

To reach us has become an easy job to attained due to the present framework of roads witnessed in all parts within United Arab Emirates, therefore we have become more nearest to you.



OUR COMPANY

OUR PLAN FOR FUTURE



Based on our past experience, we plan for our future:

"This past experience was conveyed to us by our fathers in order to make it more brilliant then to convey to our children"

In the same manner in which we have received this flag from the ancestor generations in order to survive in a brilliant future, yet we have proved to be in accordance to their expectations, endeavoring with full efforts to maintain this valuable trust for the sake of the whole present and coming generations, to grow and develop our national industries with the hands and mentality of the citizens of our beloved Emirates in order to always be the leaders and a firm source of pride for our national industries.



Emaar Products

UPVC PRODUCTS

1. Door
2. windows
3. curtain wall

ALUMINUM PRODUCTS

1. Doors
2. Windows
3. Curtain wall
4. Aluminum composit panel
(Cladding)
5. skylights
6. Aluminum security system
Amplimesh
Grill
claustra
7. Pergola
8. Aluminum Handrails
9. Frameless doors

GLASS PRODUCTS

1. Double glazing glass
2. Stained glass
3. Sandblasted glass
4. Decorative glass with
Georgian bar &
Islamic design



**EMAAR
PRODUCTS**

Emaar products system



UPVC Products



**EMAAR OFFERS BEST PRODUCTS OF UPVC DOORS AND WINDOWS
WITH 25 YEARS WARRANTY**



UPVC Products



EMAAR OFFERS BEST PRODUCTS OF UPVC DOORS AND WINDOWS WITH 25 YEARS WARRANTY





UPVC



What is U-PVC ?

"U-PVC" is the abbreviation of the technical name for "Unplasticized Poly Vinyl Chloride".

U-PVC is a leading material that can withstand the atmospheric conditions for its high durability sustainability along with it is an environmentally friendly material.

It is composed by mixing certain percentages of constituents, as provided for in the international standards, and the final material is composed of the following primary materials :-

PVC

Titanium Dioxide

Calcium Carbonate.

Impact treatment and stabilizers.

After mixing certain percentages of the above primary materials, section is produced and formed under certain temperature and standardized high qualities according to the international standards of quality in order to be characterized with its high resistance to each of UV, high temperature acids, heavy rains and soil.

Windows and doors made from UPVC materials are used in all types of buildings regardless of height, shape and various designs for the buildings.





UPVC sections have designed and formed with high quality to withstand harsh conditions, indoors and outdoors, of all atmospheric forms and conditions. UPVC is characterized with several characteristics compared to wood and aluminum.

To answer the above question “Why UPVC”, we provide the some of the said characteristics:-

- * Excellent Thermal Insulation
- * Impact Resistance
- * Sound and Noise Insulation (-30/-40 db)
- * Confirmed protection of acids
- * Complete insulation of electricity.
- * Rust resistance
- * Minimal escape of air.
- * Fire resistance “self-extinguishing”
- * High ability to rationalize the power used by conditioners.
- * Increase the efficiency of cooling and heating in consideration of the thermal insulation capacity reaching 1250 times larger than aluminum.
- * Minimal factor of expansion and shrinkage.
- * Attractive appearance.
- * High accuracy.
- * Withstanding the welded corners under pressure of 854 kg/cm².
- * PVC sections used in windows and doors will give you the best sight that you did not see before and provide you a quiet place for residence or work.



EMAAR INTERNATIONAL UPVC SYSTEM CHARACTERISTICS

Nowadays, windows are the decisive factor when it comes to a building's comfort, cost and also its appearance, UPVC windows systems became immediately popular on account of their long service life and easy maintenance. Most countries have their own quality standards and guidelines. **EMAAR UPVC** window and door systems have been independently tested for performance and quality throughout the world. They meet, and often substantially surpass, the requirements of relevant standards for UPVC windows worldwide.

BEAUTY & DESIGN

EMAAR U-PVC window systems offer the most varied styles & designs. The technical limitations of the past have been overcome and today's EMAAR U-PVC windows and doors can be fitted into any type of property from residential houses and apartments to commercial buildings such as Hotels, Hospitals and modern offices blocks. With their great versatility, the EMAAR U-PVC windows and doors will satisfy and taste in style, design and have proven to be the best material even for the restoration of historical buildings.



LONG LIFE

Thanks to modern technology, EMAAR U-PVC windows and doors will practically last forever. For this reason, they are an excellent investment for your home as they do not involve any future maintenance costs. Further more, combined with modern thermal insulation glass, EMAAR profiles will help you to achieve a sustainable energy saving effect and are, therefore, and even better investment.

UPVC SYSTEM CHARACTERISTICS

Excellent heat insulation ,energy saving

In air conditioned building, windows with low thermal conductive material can reduce the energy according to the fact at 37%. The intelligent selection on factors of thermal conductivity is the material of window profile and the selection of the glass. The thermal conductivity of UPVC is $0.14 \text{ kcal/m}^2\text{hr.c}$. While the k-value of aluminum window having the same glass is $7.6 \text{ kcal/m}^2\text{hr.c}$. Therefore, the UPVC window can reduce energy loss by over 30%.



Impact resistance

Emaar UPVC profiles are specially formulated to with stand high impact. it has an impact resistance of 3 kg. at 1m in height at room temperature 23 c.





UPVC WINDOW SYSTEM CHARACTERISTICS

Low thermal expansion

UPVC windows are easily operated even under any weather conditions due to its low coefficient of thermal expansions, which is $(3 \times 10^{-5} / \text{degc/cm})$. During summer the average outdoor temperature is 45 degc, while the average indoor temperature is 25 degc and the temperature inside the profile is 33 degc. The max. thermal expansion is 0.36 mm for 1.5 meter of profile. During winter the maximum thermal expansion is .9 mm for 1.5 meter of profile.

Electricity Insulation

UPVC has high electrical insulation which exceed 10^5ohms-cm . It is absolutely safe from electrical conductivity and maintenance free.

Attractive appearance

Emaar UPVC windows have smooth surface and welded corners with optional color combination that gives superior outlook.

High precision

Emaar UPVC material could be processed precisely and the measurements of length, width have tolerable value of $\pm 3\text{mm}$.



EMAAR INTERNATIONAL UPVC SYSTEM CHARACTERISTICS

Corrosion Resistant

UPVC windows are free from the attack of acids, alkalis, waste and salts. It is corrosion resistance when used in Gulf environment with its high temperature and high humidity.

Excellent water resistance

UPVC windows as a material absorb water below 0.1%. Moreover the double rebate gasket system and the special drainage holes assure no water leakage.

Excellent sound proof

Emaar UPVC material and the special multi chambered profiles with non-vibrant material property, and thermally assembled corners dramatically reduce outside noise. An average sound separation of 22-25 db is reached in 6 mm glazing. So, UPVC windows are especially favorable to be used in hospitals, schools, and office buildings.

Excellent fire proof

The UPVC material is an excellent fire proof material according to Din 4012 for its nonspontaneous and self-extinguishing characteristics. According to the results of window material composition test with wood, aluminum and UPVC assisted by Zurich fire brigade on February 1973, the UPVC window had been proved no damage and met the "stipulations of combustible building materials used in high rise buildings". The UPVC window could be used in all kinds of building materials regardless of altitudes in other countries and is known and accepted as safety material by fire brigade authorities in Australia, Germany, New Zealand, Switzerland and us.



Standard features

- Espagnolette locking systems
- Low " E " glass
- 60 mm thick profiles (frames)
- Internally glazed (security benefits)
- 10 years guarantee
- variety colors
- Variety handles



Optional features

- Shoot bolt locking system
- Triple glazed units
- Argon gas filled units (greater energy efficiency)
- 70 mm thick profiles
- Decorative glass
- Color matching service(frames)
- Handles

Security Features

- All windows and doors have been designed as per standard scheme
- Full accreditation has been given to all our products
- High performance locks,hinges,fully galvanized & reinforced frames help resist against forced entry and ensure every lock fastening is driven in firmly for extreme strength and rigidity.
- Internal beading that is glazing from inside is another security feature on windows and doors that is surely impossible to remove the glass from outside.

Energy efficiency

- we focused on the significance of energy efficient windows and doors.Between 5-10% of heat can be lost through poorly fitting single glazed windows and further 15% through sub-standard doors.
- Our windows and doors help keep fuel bills down. They boast excellent in heat insulation features including snug fitting seals and low e glass (special glass with an invisible, heat reflective coating) that makes it more energy efficiency.

Emaar International UPVC Advantages

Physical properties

Density	1.4g cm-3
Flammability	self extinguishing
Limiting oxygen index	42%
Refractive index	1.54
Resistance to ultra-violet	good
Water Absorption-over 24 hours	0.03-04%

Electrical properties

Dielectric constant @1 MHz	2.7-3.1
Dielectric strength	14 kv.mm-1
Dissipation factor@1khz.	0.025
Volume resistivity	1016 ohms

Thermal Properties

Heat Deflection temperature -0.45mpa	70°C
Heat Deflection temperature -1.8mpa	67°C
Lower Working temperature	-30°C
Thermal conductivity temperature @23.c	0.12-0.25 w m-1k-1
Thermal Expansivity	75-100x 10-6 k-1
Upper working temperature	50-75°C





UPVC ADVANTAGES

Mechanical Properties

Elongation Breaks	60%
Hardness-rockwell	R106-120
Izood impact strength	20-1000jm-1
Tensile modulus	2.5-4.0 gpa
Tensile strength	25-75 mpa

Chemical resistance

Acids-concentrated	fair
Acids-dilute	good
Alcohols	fair
Alkalis	good
Aromatic hydrocarbons	poor
Grease and oils	fair
Halogens	fair
ketones	poor



SOUND INSULATION

Sound means changes of pressure perceived by the ear in solid, liquid and gaseous environments, irritating sounds are called noise. Sound above 50 db means "noise" for human beings and noise is disturbing. Vibration and noise have to be insulated in order to preserve a tranquil interior atmosphere.

Wintech, being the leading procedure of polyurethane installation systems, prevents probable effects of vibration by reflecting into walls using the system of cushioning vibration with polyurethane foams. It provides maximum insulation and complete sound isolation by means of static air channels created by seals between the frames and wings in addition to static air filled wide chambers.

Double glaze applications enable the customers to maximize sound isolation with air space up to 16 mm between flat glasses and with triple glaze with various thicknesses of flat glasses.

Wintech does not allow noise pollution penetrate into interior spaces.

Sound and Source of Sound	Classified Value (dB)
Gunshot	150-160
5 mt distance to jet engine	140-150
Motor experimenting station	100-110
Weaving factory	90-110
Very noisy street	80-90
Loud music	80
Vacuum cleaner	60
Talking	50
General Noise at home	40
Calm garden	30
Breathing	10
Silence	0-10

THERMAL AND WATER INSULATION

Thermal spaces windows are the initial cause of heat dissipation. People have been looking for a solution to heat the exterior spaces in winter and protect interior spaces from exterior heat in summer for centuries. In most of the constructions, small windows have been built, the scenery and sunlight has been partially sacrificed and construction expenses have increased.

Using the most recent high technology in window production, wintech has been the trademark by maximizing scenery and natural sunlight options and providing the best thermal and water insulation.

Three and five chambered profiles with three and two effective seal system in frame wing combinations, stabile air channels and 2 and 3 manias occur along joinery. These qualifications leave the negative conditions of exterior environment outside and maximize the interior comfort. Comfort in interior spaces is felt without sacrificing natural sunlight and wide scenery. A window does not only mean comfort and appearance in a building. It is source of savings with right choice and correct application methods. Wintech meets the expectations of customers from a window by using double glaze and specially insulated glasses instead of single glaze application on a window.

The comparison of a glaze wooden window and double glaze plastic window exchange in a space has been presented as follows:

External Temperature (External Temperature -15°C)	U Value of Glass W/(m ² K)	Internal Temperature (Internal Temperature 20°C)
-6.2°C	5.8	-5.4°C
-10.4°C	3	+6.9°C
-13.0°C	1.3	+14.3°C

U = Heat conducting coefficient

As seen above, the external temperature of the external glass section decrease as the U value decreases, however, internal temperature of internal glass section increases. The U value for 60 mm width is 2,6 W(m²/K)

FIRE PROTECTION AND SECURITY

The high level of concentrated chloride proportion in PVC compound makes the PVC compound hard to blaze and emit very little amount of heat compared to other inflammable materials in case of flaring up. The gases leaking out in case of inflammation of PVC products carry no special risk for the building's functions. Therefore, the insurance companies have the same equivalence value for the PVC compound and other construction materials.

In fire cases thus far, it has been observed the PVC windows do not virtually burn, however the wooden windows catch fire easily burned altogether. The temperature for inflammation of PVC compound is 150°C higher than the wooden windows

VC Concentration Boundary Values in PVC Production

The permissible concentration rate of VC at workplaces and their environments was 500 ppm in the year 1966, however today the value is 3 ppm. This ratio has been decreased to 1 ppm thanks to the technical precautions. As a result, they avoid any kind of risk of cancer in PVC

The Cost of PVC Usage in Constructions and Comparison with Alternative Methods

The complete cycle beginning from raw material usage for products to final waste product evaluation is taken into consideration in comparison of alternative products used for specific purposes today. This type of evaluation is called "ecological clearance". The ecological clearance of Aluminum, PVC and wooden windows prove that PVC products are the most environment-friendly products.

The amount of energy used in PVC and wooden window production is almost the same, while the energy used for aluminum doubles the amount for production of a similar window.



STATIC CONSTRUCTION APPLICATION

Wintech has the capability to produce profiles which have the capability to resist against all kinds of wind load, all types of weather conditions, in all dimensions and shapes. Thicker outer walls, perfectly positioned air channels and chambers and well-mixed compound allow Wintech profiles to provide required durability and methods of usage. Thickness of 1.55 mm in inner wall and galvanized reinforcement profile keep Wintech profiles stable. Wintech is the first time to offer its clients the opportunity to open windows upto width of 1,3m and doors upto height of 2,2m.

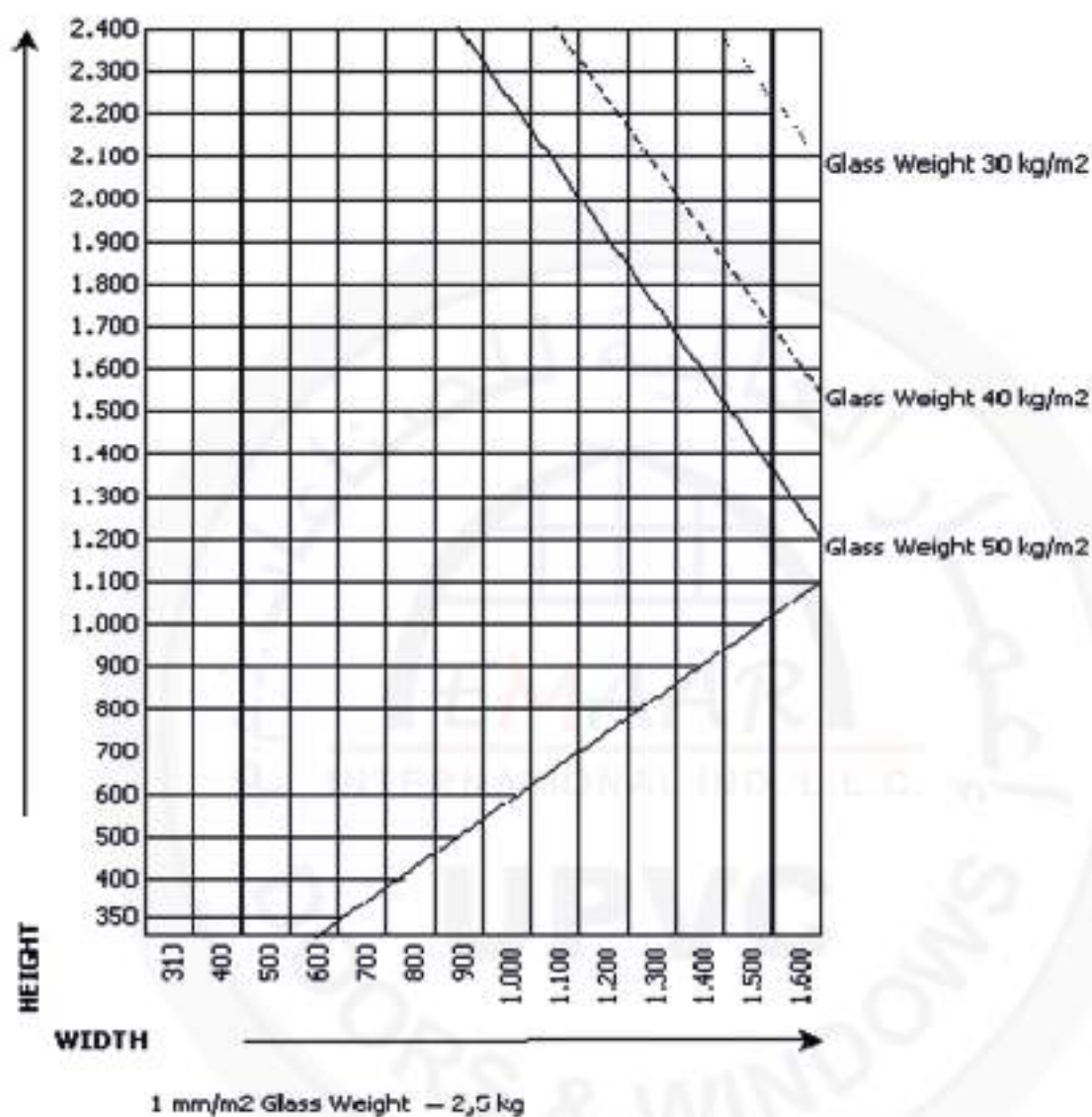
Wintech has broken the grounds in special application details. Through polyurethane installation technique, complete filling application has been initiated which contributes to sound and heat isolation in the combination of PVC profile and wall systems by avoiding negative effects (oxidation, loss of time and loss of welding etc.) Accepting this qualification as one of the important steps quality Wintech, the company constantly organizes training for its staff of product implementation.

Pressure depending on the height of the building;

Height from ground	Wind speed m/s	Pressure q kN/m ²
0-8	28.3	0.5
8-20	35.8	0.8
20-100	42.0	1.1
100 Above	54.6	1.3



CALCULATION OF SASH CARRYING CAPACITY



Sash	Carrying	Capacity	Area	Calculations
WIDTH	of WINDOW	SASH :	400 – 1400	mm
HEIGHT	of WINDOW	SASH :	400 – 2200	mm
WIDTH	of DOOR	SASH :	400 – 1000	mm
HEIGHT of DOOR SASH : 400 – 2200 mm				

SYSTEM DESIGN

Tilt and Turn windows

1. Glazing seal casement seal vanish optically as much as possible due to slim design. Only one type of gasket is used for glazing and internal and external sealing. This gasket is highly efficient in view of air permeability and tightness and tightness against wind driven rain.
2. Glazing rebate and glazing beads allow the use of glass thickness from 4-6 mm single glazing to 18 - 24 mm double glazing.
3. The rebate up stand of sash profile and outer frame profile has exactly the same design. The result of equal designs are identical conditions for the end of miling of transoms and mullions in outer frames and sash frames.
4. The smooth and beveled bottom of the rebate allows perfect drainage an easy cleaning.
5. The single leg glazing bead is clipped-in in the glazing bead groove in full length.
6. The reinforcement steel for sash frames and outer frames are identical



Tilt & turn windows



SYSTEM DESIGN

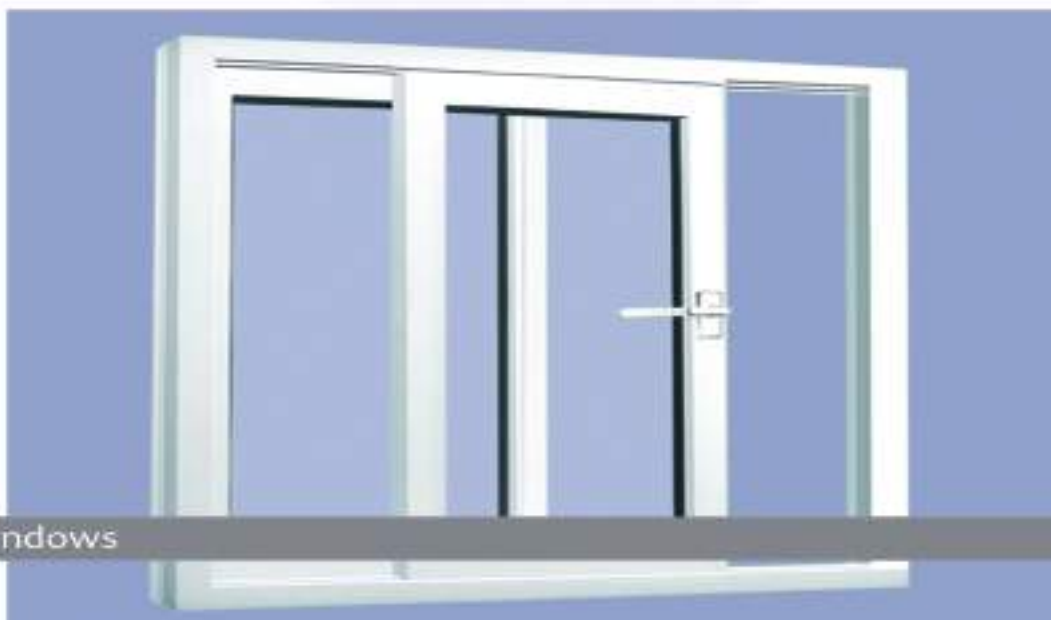
Tilt and Turn windows

7. The axis dimension of hardware groove is 13mm. this increases the safety of burglar proof hardware.
8. The higher edge of the rebate works as a guiding edge for striker plates and is stopping the water from entering the internal side of the window.
9. Load bearing parts of the hardware are screw - fixed into two walls of PVC, specially designed screw channels or thicker parts of profile walls. If it is necessary additional screw fixing in steel reinforcement is possible.
10. The outer drainage slots can be made directly through the outer surface of the profile to the outside or downwards to the outer window sill.
11. Supplementary profiles are easily fitted with a clip-on system, which takes in to consideration all possible situations on site. A full range supplementary profiles, which can be clipped on necessary, also can be corner welded together with the outer frame
12. 3-chamber-profile system for sound and heating proof.
13. Efficient protection from insects by the use of fly screen with brush seal.



Horizontal sliding windows

1. Glazing seal and casement seal vanish optically as much as possible due to slim design. Only one type of gasket is used for glazing and internal and external sealing. This gasket is highly efficient in view of air permeability and tightness against wind drive rain.
2. Glazing rebate and glazing beads allow the use of glass thickness from 4-6mm single glazing to 18-20mm double glazing.
3. The single leg glazing bead is clipped-in in the glazing bead groove in full length.
4. Safe screw fixing if hardware parts.
5. Two methods of drainage, face or concealed drainage.
6. Supplementary profiles are easily fitted with a clip-on system, which takes into consideration all possible situations on site. A full range supplementary profiles which can be clipped-on necessary, also can be corner welded together with the outer frame.
7. The smooth and beveled bottom of the rebate allows perfect drainage and easy cleaning.
8. The higher edge of the rebate works as a guiding edge for striker plates and is stopping the water from entering the internal side of the window.
9. Provided with highly efficient flyscreen with brush seal which can be fitted inside or outside.
10. pull out strip for rail gap
11. Brush seals in sash and mosquito frame are identical.
12. Rail gap for smooth running of sliding sash hardware.



GUIDELINES

For the welding of UPVC profiles

REQUIREMENTS

- Min.temperature of profile 15°C temperature rise approx.1°C per hour
- joining parts appropriately dimensioned
- Maximum Angle deviation 0.5°
- Joining faces must be free of oil, dust, moisture and protective film.



WELDING

- Welding plate temperature 235° - 245°C, verification with measuring device on welding plate
- Surfaces of the welding film must be free of residues and undamaged
- Welding shims must be suitable for the profile type

Standard operating pressures

- | | |
|----------------------|---------------|
| - Clamping pressure | approx.6 bar |
| - Adjusting pressure | 2.5 - 3.0 bar |
| - Joining pressure | 5 - 6 |

Welding bead limit

- | | |
|---------------------|-----------|
| - 2+0.2 mm | |
| - Knife temperature | 45 - 50°C |

Welding periods

- | | |
|----------------------------|-----------|
| - Melting times | 40 - 50°C |
| - Changeover time, maximum | 2 sec. |
| - Joining time, minimum | 25 sec. |

GUIDELINES

Cooling time before plastering

- Minimum of 45 sec. (but no more than 30 min.)
- No accelerated cooling (e.g. by use of compressed air)

Welding with welding corner fasteners

- | | |
|-----------------------------|--------------------|
| - Welding plate temperature | 235 ⁰ c |
| - Melting time | 60 sec |
| - Changeover time, maximum | 2 sec |
| - Joining time, minimum | 25 sec |
| - Cooling time, minimum | 60 sec. |



Plastering

- Avoid notches
- Maximum groove depth 0.3 mm
- Rounded inside corner knife
- Limit the drilling of seal locating grooves to the necessary depth.



HARDWARE AND ACCESSORIES

A. Fittings

All fittings shall be stainless steel, aluminium or other corrosion-resistant materials compatible with UPVC, steel may be:

- Zinc plated steel
- Cadmium plated steel
- Nickel and chrome plated accordance to DIN 50961 and 50941

Tilt and turn windows and doors shall have multiple parametric locking system and suitable handles to the architects/consultants approval.

1. Cover plate junction - this shall provide a flush connection between parts to ensure constant stability in operation
2. Groove claw - this shall provide a mechanical bond between the gearing and profile. It guarantees all operational forces are transmitted throughout the frame and sash giving longer operational life.
3. 3-D Roller - this reduces friction between component parts, and is adjustable in height to allow additional cover and security.,
4. Sash-lifter- this device shall lift the window automatically upon closing to ensure optimum operation.
5. Anti-slam-device - this shall prevent the tilt open sash from closing spontaneously due to wind or pressure changes.
6. Self-adjusting Tilt device - this allows the optimum tilt angle preventing the sash from bouncing in the tilt opening position.
7. Mishandling Device- prevents the window from entering both the open and tilt mode simultaneously.

Sliding windows and doors shall have sliding mechanism with espagnolettes, secure locking system and suitable handles to the Architects/Consultants approval.

B. Reinforcement:

The frames and sashes shall be reinforced within the main chamber as per statistical calculations to add rigidity to the UPVC profiles and shall be made of galvanized steel with a thickness of 1.5 mm - 2.0 mm

HARDWARE & ACCESSORIES

C. Gaskets

All glazing and weather gaskets shall be EPDM Rubber in accordance to DIN 180 - 1629. Glazing and weather gaskets shall be retained in purpose design grooves and shall go around the glazing in one piece. gaskets are cut oversize by about 3% to ensure that it does not shrink thus minimizing the risk of creeping back Weather seals - material of brushes shall be made of polypropylene, non aging.

D. Glazing Blocks

Glazing blocks are inserted to ensure that the weight of the glass is correctly supported and does not distort the frame, nor result in the opening of light dropping. Packers (wedges) are inserted to locking points to aid security.

E. Riser Blocks

Shall be plastic wedges fixed to frame to support a side - hung casement window when closed.

F. PVC Blocks

Be made of PVC material that connects the transom or mullion to the outer frame in the case of mechanical jobs.

G. Welded corner Joints

Shall be made of high quality plastic that is inserted into corners of door sashes for added strength in case of large door openings.

H. Door Thresholds

Shall be of high grade aluminum profile. Provided for in external doors.

I. Insect screens

Shall be made of steel or PVC coated fibreglass core with individual diameter threads of 0.3 mm. Applicable for sliding and tilt and turn windows.

HARDWARE AND ACCESSORIES

J Sealing Pieces

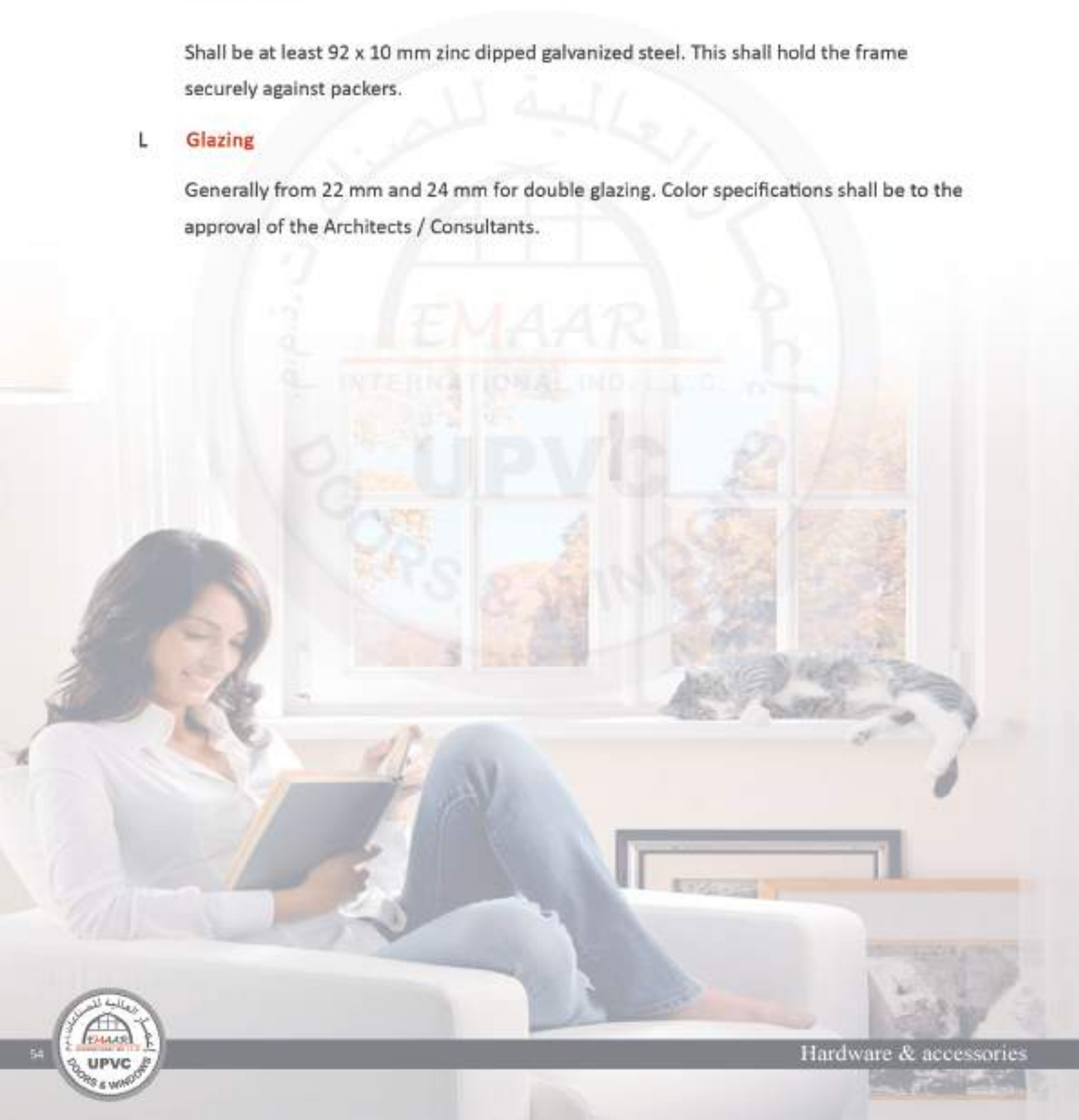
Shall be made of PVC material and shall be fixed to the middle of the upper and lower part to the sliding outer frame by screws to seals of any gaps between the outer and sash frames

K Anchor bolts

Shall be at least 92 x 10 mm zinc dipped galvanized steel. This shall hold the frame securely against packers.

L Glazing

Generally from 22 mm and 24 mm for double glazing. Color specifications shall be to the approval of the Architects / Consultants.



UPVC DOOR & WINDOW PROFILES

1. Materials

UPVC (unplasticised polyvinyl chloride)

A blend of PVC compounds, rigid and generally resistant to attack in most weathering conditions extruded into sections of profiles. The formulation shall meet the following requirements:

- Vicat softening temperature VST/B50, DIN EN ISO 306 $\leq 75^{\circ}\text{C}$
- Modulus of elasticity : flexural modules E DIN EN ISO 178 or tensile E DIN EN ISO 527-1-3 $\leq 2200\text{N/mm}^2$
- Charpy impact strength: DIN EN ISO 179, 1Ea : $20 > \text{KJ/m}^2$
- Stability time Ts, DIN 53381-1

2. Profiles

The profiles shall meet the workability requirements and especially the following requirements:

2.1 color

the color range for window profiles with white surface is defined as follows:

$$L^* \leq 90$$

$$a^* \geq 3 \text{ and } a^* < 3-$$

$$b^* \geq 5 \text{ and } b^* < 1-$$

Compared to the standard color of the manufacturer, the profiles should not exceed the following colour deviation limits:

$$L^* \leq 1.0$$

$$a^* \geq 0.5$$

$$b^* \geq 1.0$$

$$E^* \geq 1.3$$



UPVC DOOR & WINDOW PROFILES

2.2 Appearance and delivery conditions

The external visible surface of the profile shall show a uniform white colour and shall be free from foreign bodies. The profile has to be free from cavities, crack and bubbles and other defects.

2.3 The main profile shall be marked legibly and visibly in spot visible when the window is closed. The mark shall shows:

- The manufactures identification mark
- The certification mark with registration number
- A mark for the production period

2.4 Deviation slons and weights

2.4.1 External and function dimension

The shape and dimension of all profiles have to comply with the dimensioned drawing of the section. The external dimensions shall not deviate more than +0.3mm in profile depth and +0.5mm in profile width from the nominal dimension

2.4.2 Deviation and straightness

All profiles have to be straight : the deviation from straightness shall not exceed 1mm/m

2.4.3 Weight

The weight should not be less than the nominal weight by more than 5% per meter main profile.



WINDOW INSTALLATION

Emaar UPVC recommends the following procedure for windows installation;

1. Holes of sizes 6mm or 11 mm are drilled on the frame profiles.
2. Initial holes should be approximately 180-220 away from joint corners of the window frames, which depends on the size of the windows and doors to be installed.
3. The inner face of the frame then again drilled for attaching the plastic cap on final stage of installation. size of whole approximately 13 mm.
4. Prepared profiles are mounted in the masonry with caution not to make any damages on the profiles. Hammering is made with the use of plastic headed or rubber headed hammers.
5. During mounting, the vertical and horizontal elements of the UPVC profiles should be checked aligned in all sections by spirit level before finally fixing the whole things by screws.
6. Once finally mounted, on the same place where previous hole has been made another drilling will be done using 4mm or 11 mm (embedded steel/screw anchor) to make hole for reinforcement steel frames and the pre-cast concrete. It is recommended all fixing screws to be stainless steel (A2 or A4).
7. Profiles are fixed on the wall by tightening the screws. Do not over tighten the screws otherwise it will distort the frame.
8. To prevent ingress of water into the cell section all fixing screws through the bottom of the window should be sealed with silicon, which are in contact with the concrete or the external opening.





The glass thickness and air space in the double glaze of units vary depending on the parameter of window and wind load. In order to choose the ideal glass thickness according to glass dimensions and their areas, the table prepared assuming an average 150kg/m² wind load has been presented below

Technical Details:

6+6	6	2500	5.00	29	+0.8	0,5/+2
	9	2700	5.80		+1.8	
	12	3000	6.90			

GLASS INSTALLATION



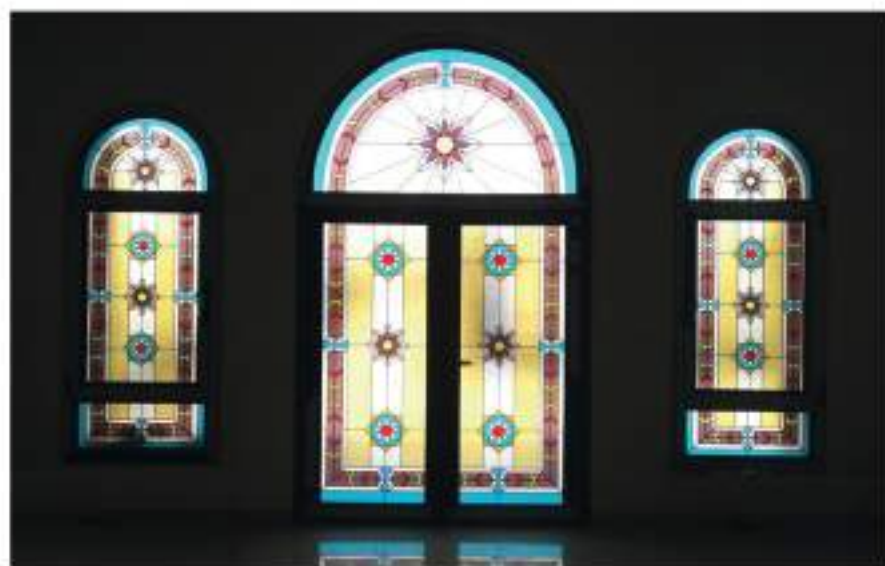
The following procedure is for installation of glass

1. Before the glasses are mounted on the installed profiles, it should be checked that all glass seals are connected on the ends with sealants.
2. For fixed windows, main glazing plastic support is placed at the bottom to act as leveling guide for the glazing especially for the double glass.
3. Glasses are fixed to profiles by pushing the glass beads on the frames.
4. Glass seals then, are finally checked if holding properly to the glasses.





Stained Glass Designs



Stained Glass Designs

people are like stained glass windows, doors, etc.... They sparkle and shine when the sun is out, but when the darkness sets in, their true beauty is revealed .
Only if there is a light from with in.

INTERNATIONAL LTD. L.L.C.









OUR **GERMAN** TECHNOLOGY SYSTEM



OUR PROFILE PARTNER

Corporate Values

vision

To become be one of the best companies which produce the highest quality PVC profiles. We will be a leading and well-known brand name in the global marketplace to associate our country's name with the highest quality products.



The mission of Wintech is to present customers the most qualitative products and most efficient services to become "the world's largest PVC profile producer". In line with this, Wintech aims at presenting the world high-technology products and qualitative services with a global understanding.



ENVIRONMENTAL POLICY

As a company which is conscious about its environmental responsibilities, wintech has determined methods and put them into practice in order to determine the environmental extents and effects of its activities during all of the phases and supporting processes starting from the manufacturing of the product until the completion of the shipment. Wintech will remain sensitive being carried out without causing environmental pollution.

Therefore the following points have been adopted as our principles;

- Obeying all regulations and administrative arrangements regarding the environment
- Establishing the ISO 14001 Environmental Management System, apply effectively and provide the sources necessary for maintaining its sustainability
- Using of energy and natural resources optimally
- Following environmental criteria with regards to the usage of raw and auxiliary material, taking the adverse effects of these materials under control.
- Prevention of pollution, reducing the waste and source separation in order to reach maximum recycling rates
- Raising employee awareness with the training providing about the environment, informing them and generating motivation.
- Sharing the procedures that are carried out with the employees, keeping them open to public interest and taking the expectations of every share holder into consideration
- Keeping the environmental factor in consideration within new investments and projects
- Reforming environmental performance

We set new targets every year for a clean environment and a healthy future. While our prime target is to generate as little waste as possible, we classify the waste produced during manufacturing, try to recycle and dispose those which cannot be recycled in a way that is no harm to the environment and in accordance with the law.

In order to reduce our usage of natural resources and production of waste to the lowest level possible, we try to develop new methods, aim to prevent environmental pollution with environmentally friendly projects and maintain the sustainability of the systems built within the frame of environmental protection policies.



UPVC WINDOW Production and Techniques

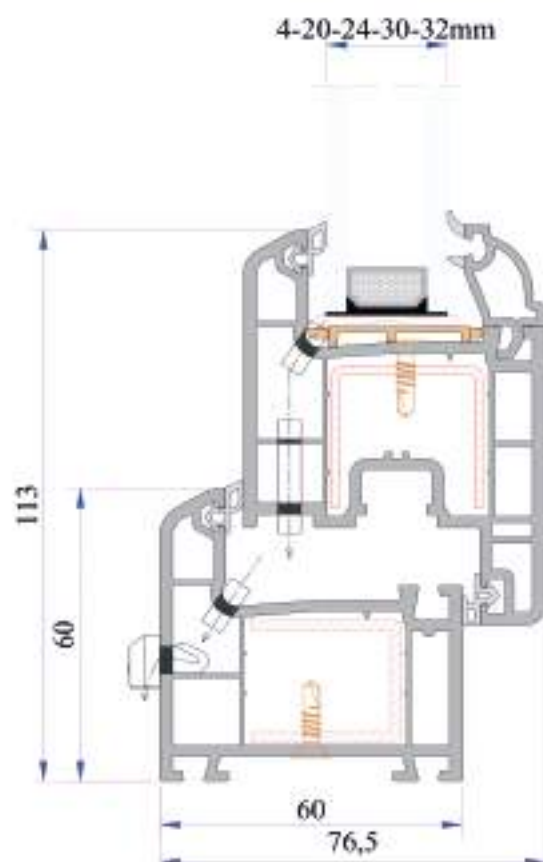
The symbol of Wintech's perfectionism in production is promoting the customer satisfaction by producing quality profiles and delivering these products to anywhere through its widespread suppliers network. "Producing a high quality PVC profile" for Wintech means combining raw material of high quality with the most advanced production techniques in the hands of an experienced expert staff in a good establishment with perfect organization.

A special compound is prepared by adding the PVC raw material, produced with polymerization of vinyl chloride monomer, components providing impact resistance, color pigments, stabilizer and other filling materials. The preparation of this special compound by using high quality additives is the first step to the production of Wintech profiles.

The compound is processed by the high tech extruders and perfect Wintech tooling components and double sided protective folios and , then converted into Wintech profile. Before the further stages, the newly manufactured profiles are tested for impact resistance, corner endurance, welding coherence, dimension changes after keeping in a hot area, reaction after keeping in a hot area, color originality (aging) under different thermal conditions, determination of temperature, strike resistance, mechanical endurance to weather conditions. The physical appearance, color, brightness, dimensions and surfaces are regularly tested.

The impact resistant, unfading and easily cleaned Wintech profiles are packed up and stored for the next stage of PVC joinery.

What makes the difference for Wintech joinery is the perfect combination of extreme sensitivity, elaborate mastery and high tech production technologies applied on high quality window profiles. The resistance, heat and sound insulation, comfort in usage, healthy penetration of sunlight; aesthetic design color provisions are all related to Wintech's perfect production techniques. Thanks to its eligibility to international norms, the exporting of PVC joinery systems to various countries all over the world prove that Wintech meets the needs for all kinds of expectations for window related products all over the world.



TECHNICAL

W 632 SERIES

Profile Width: 60 mm

Number of chambers: 3

Profile Class: B Class (TS EN 12608-1)

Seal Type: External / Internal double seal system

Seal Type and Color: TPE - Grey /Black

Glass Thickness (mm): 4, 20, 24, 30, 32 mm

The thermal insulation Uf: 1,58 W/m²K

INSTRUCTION

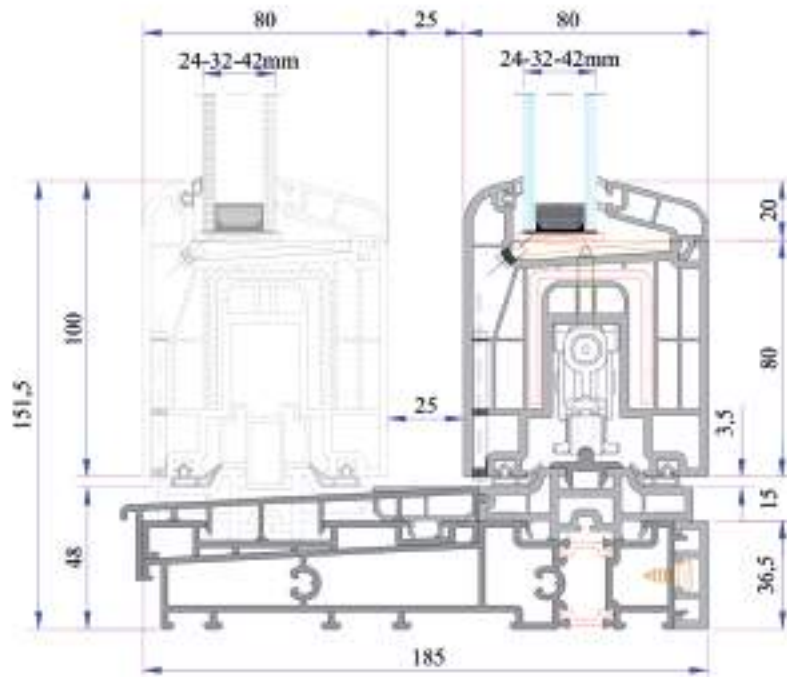
- The main profile has 60 mm width.
- Because of the elastic grey and black seal which does not leave any stain on profiles will be provided maximum air, water, dust and sound isolation.
- Due to the 3 chambers profiles, it has maximum performance for thermal, sound and water isolation.
- It is a series of profiles with very special design that provides maximum wind resistance on high rise buildings.
- Excluding normal sash profile there is also chance to have a choice for offset type sash profile.
- In addition to white profile a different laminated color range is available.
- 4-5 mm single glazing application of 20, 24, 30, 32 mm glazing beads give us alternatives of using double, triple glazing and panels.
- It provides the visual integrity in the inner surface and the frame-wall connections due to integrated frame with sill profile.



W 750 SERIES

- > 70 mm profile width
- > Perfect thermal, Sound and Water isolation thanks to 5 chambered system
- > Endurance for all weather conditions
- > Quick production and low inventory costs thanks to self supported profiles (CRP) and TPV grey sealed profiles.
- > Application of single glazed (4-6 mm) and insulating glass (20-24-30-32 mm) by grey sealed glazing beads in different thicknesses.
- > Aesthetic view with offset type sash
- > Staged water drainage system
- > Joinery production in all required dimensions
- > Single opening, tilt and turn system, and double sash opening applications.
- > Application with blinds (motorized, remotely controlled or manuel) and without blinds
- > Wooden designed laminated applications.
- > Certified quality by national and international evaluation institutions.

W-880 HEBESCHIEBE SERIES PVC PROFILE SYSTEM



TECHNICAL

W 880 HEBESCHIEBE SERIES

Profile Width: 185 mm frame, 80mm sash.

Number of chambers: 5 chambers system

Profile Class: A Class (TS EN 12608-1)
RAL 716-GZ

Seal Type: External / Internal double seal system

Seal Type and Color: TPE - Grey /Black

Glass Thickness (mm): 24, 32, 42 mm

The thermal insulation Uf: 1.5 W/m²K

INSTRUCTION

- 185 mm Frame, 80 mm sash profile combination.
- Because of the elastic grey and black seal which does not leave any stain on profiles will be provided maximum air, water, dust and sound isolation.
- Color range for laminated products.



HEBESCHIEBE SLIDING SYSTEMS

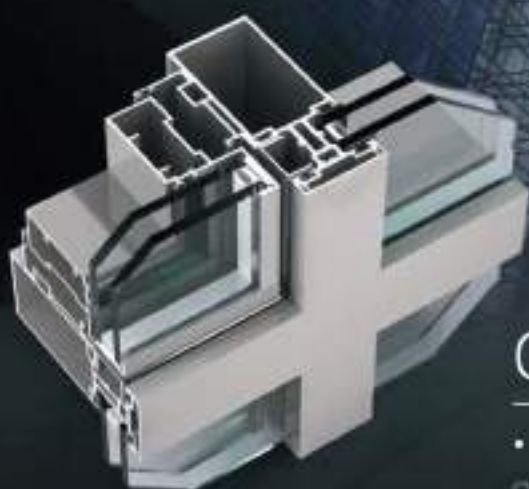


Aluminium





ALUMINIUM PROFILES DETAILS



CURTAIN WALL 50MM

- Features glass – 6mm to 32mm

CW 50 is a unique curtain wall structure that combines multi-structural grid to create various aspects, starting by the conventional curtain wall system passing through the two way horizontal capping curtain wall systems to the four way structural curtain wall systems. CW 50 has proven to be a curtain wall solution perfectly tailored to the Middle East market requirement.

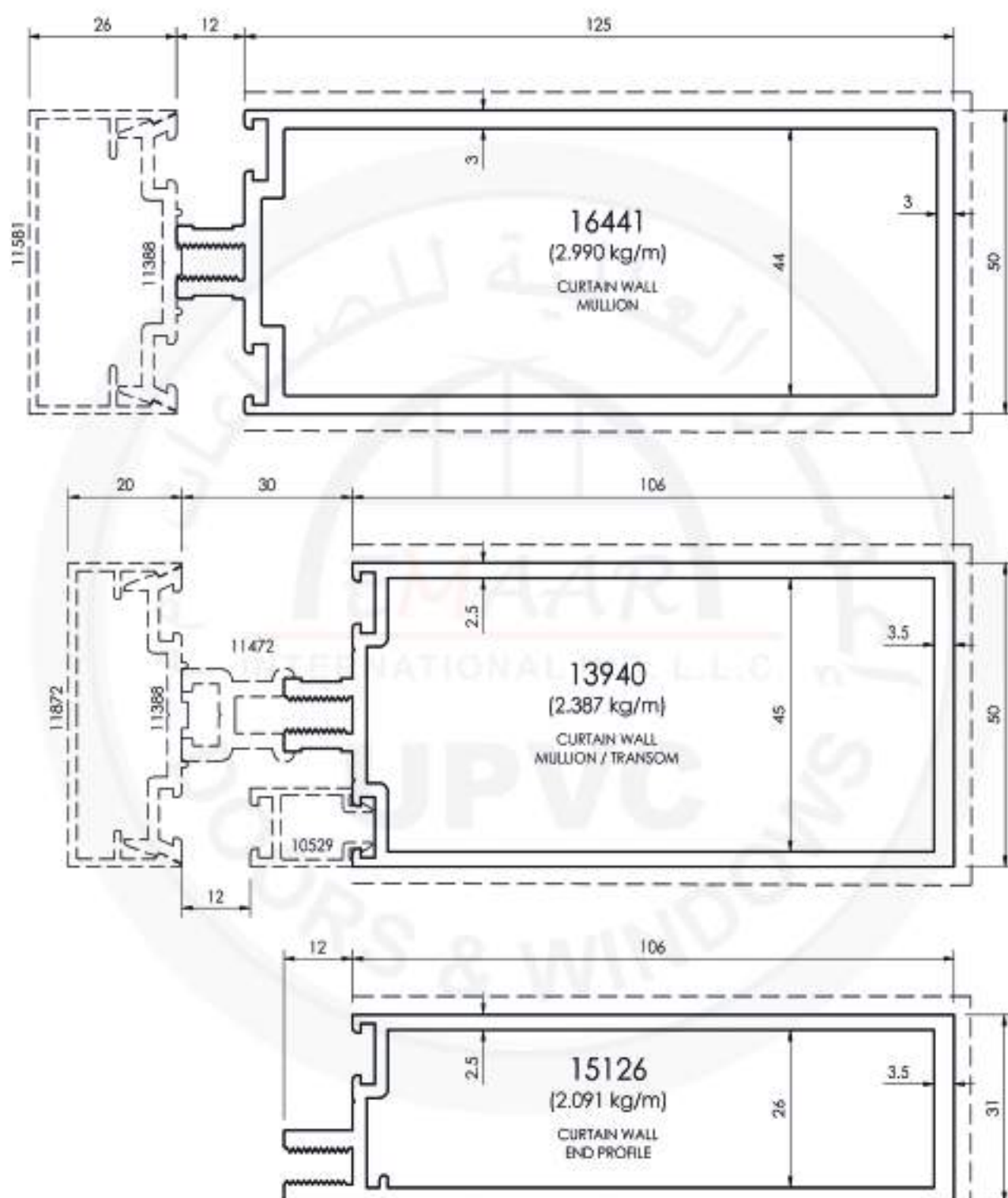
Features:

The CW 50 system consists of 50mm width structure components allowing several external appearances. It is fast to manufacture and to install. With the wide range of profile selection, the system can provide the possibility of large glass panels, maintaining the stiffness and rigidity of the curtain wall structure. Mullions can be reinforced by Aluminium or Steel tubes to enhance the free span area, making it possible to be used in high structures. In CW 50 system, Casements are Italian openings with selected stay arms to ensure the lightness and stability of the opening.

CW 50 uses the same structures for multifunctional applications:

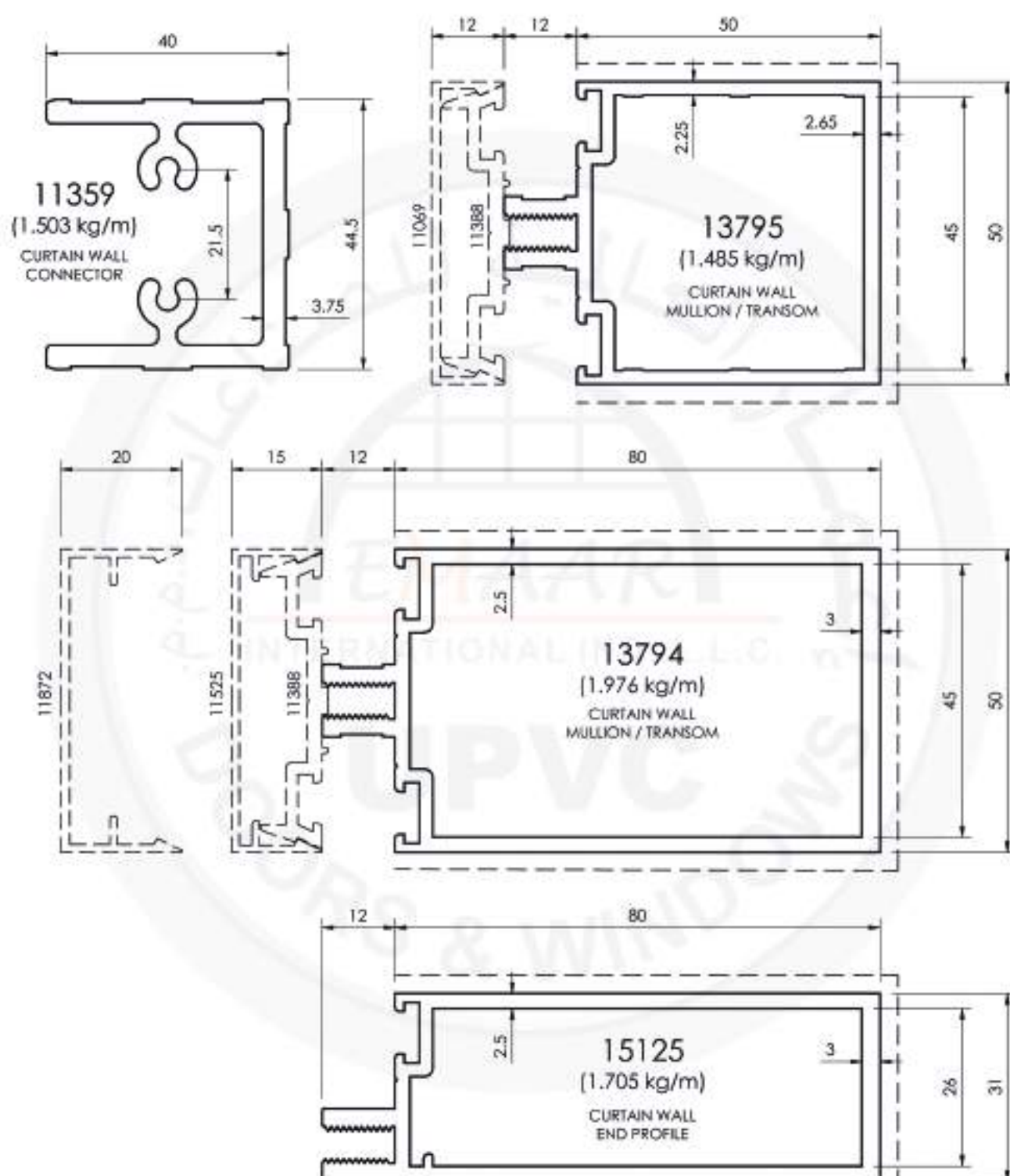
- Conventional application is obtained by applying horizontal and vertical caps, clipped to horizontal and vertical pressure plates screwed to the structure holding the glass panels. Two EPDM gaskets, one to the inside fixed on the structure, the second to the outside fixed on the pressure plate; provide the grip on the glass panels.
Glass thickness ranges between 6mm – 32 mm
- Two way or horizontal capping application is obtained by applying horizontal caps only, clipped to a horizontal pressure plate screwed to the structure and holding the glass panels. Two EPDM gaskets applied horizontally one to the inside fixed to the structure; the second to the outside fixed to the pressure plate provide the grip on the glass panels. Vertically only a vertical sealant is applied between the glass panels for aesthetic and water tightness
Glass thickness ranges between 6mm – 32mm
- Four way structural aspects is a curtain wall aspect which conceals that conceals the aluminium structure from the outside making it completely invisible. Concealed openings are designed in order to keep the external appearance of the structure uniform even in the presence of the opening. The four way structural applications is obtained by fixing a glass toggle to the glass holding the panel by a specially designed aluminium spacer, well sealed by a structural sealant to ensure the rigidity of panel. The space between glass panels is sealed by a neutral sealant for aesthetic and water tightness purposes; this application is the most common application in the MENA region.
Glass thickness is of 32 mm if panel is composed of Xmm inside- 20 mm airspace-8 mm outside the glass thickness can vary if we change the outer glass thickness uniformly on the façade.

MULLION / TRANSOM PROFILES



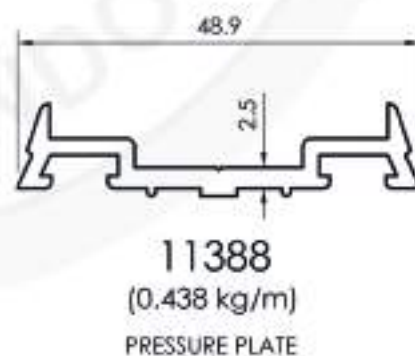
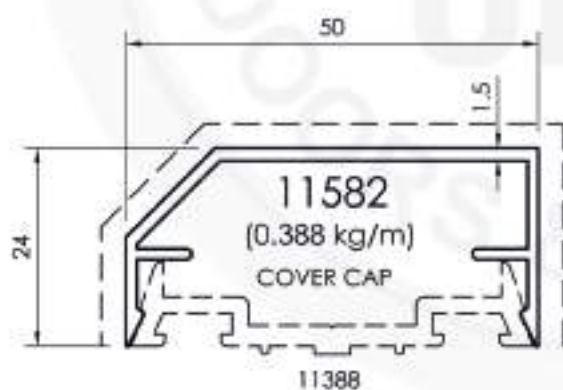
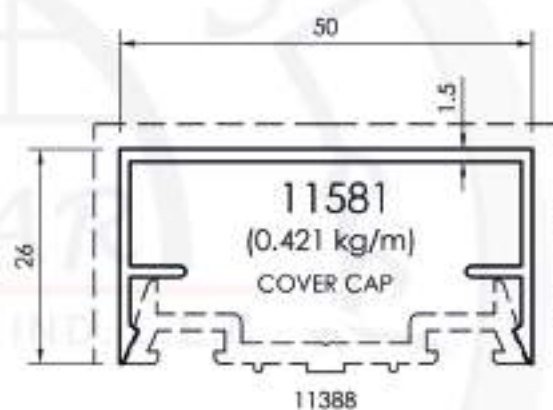
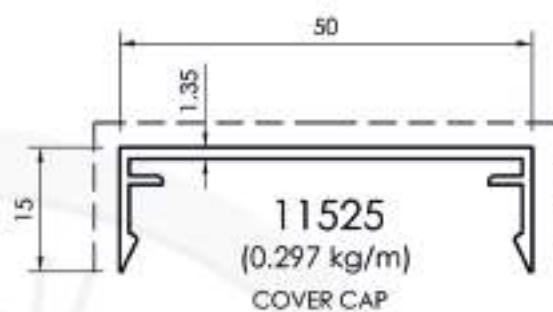
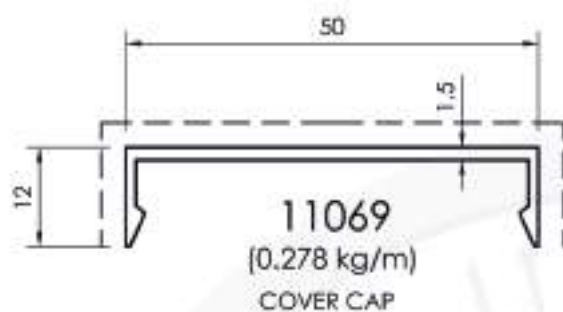
All dimensions in mm
Visible area.....

MULLION / TRANSOM PROFILES



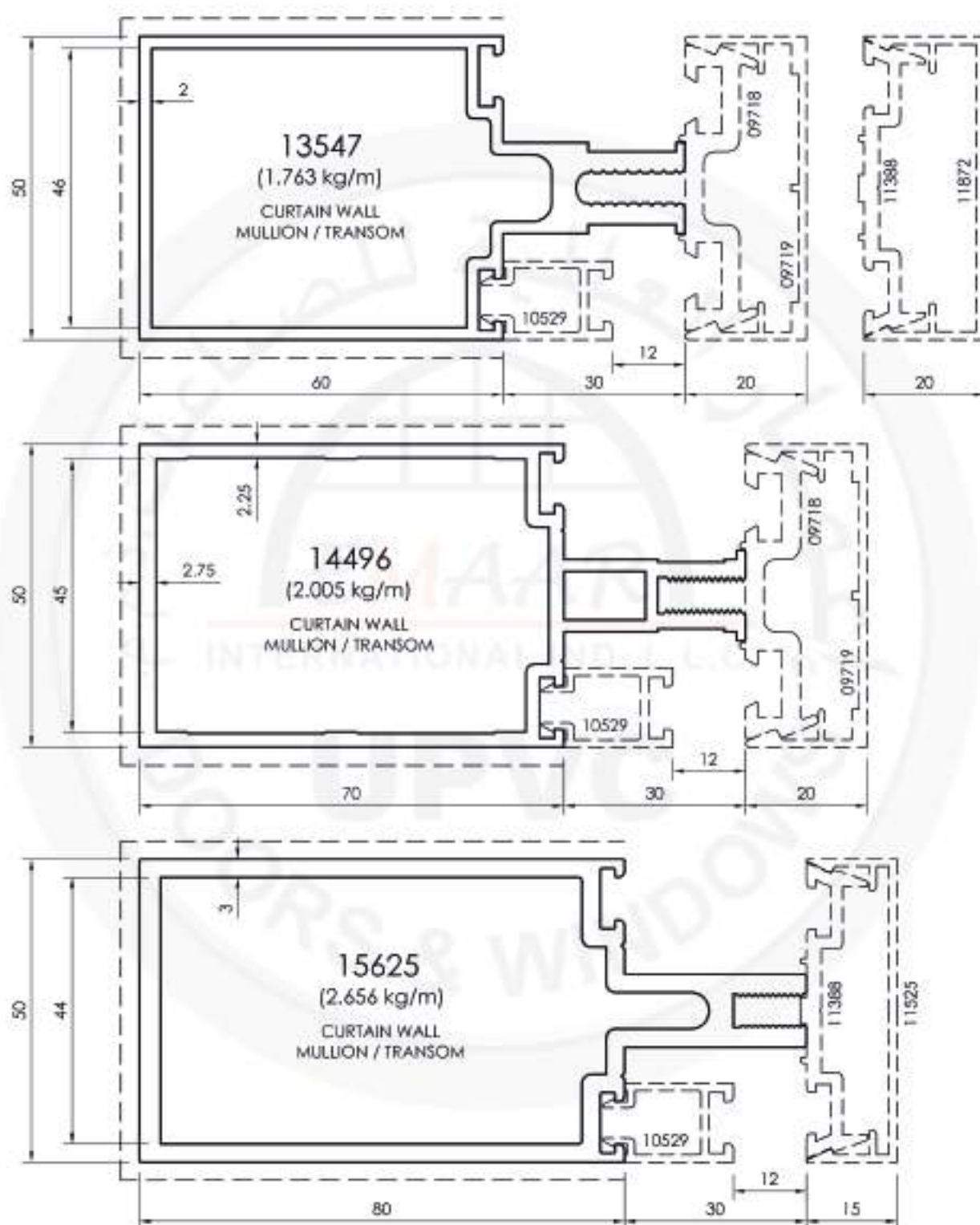
All dimensions in mm
----- Visible area

COMPLEMENTARY PROFILES



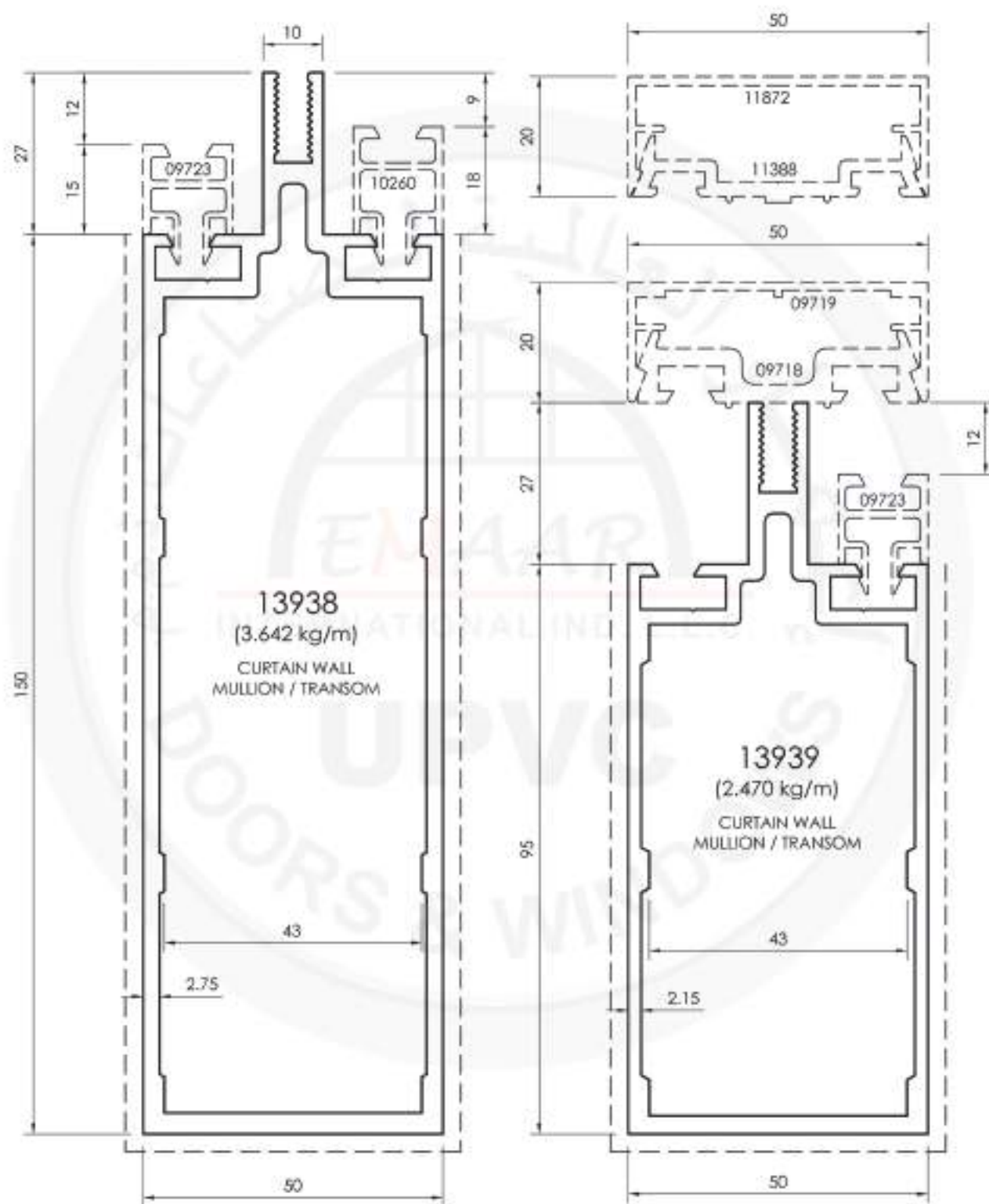
All dimensions in mm
Visible area.....

MULLION TRANSOM PROFILES



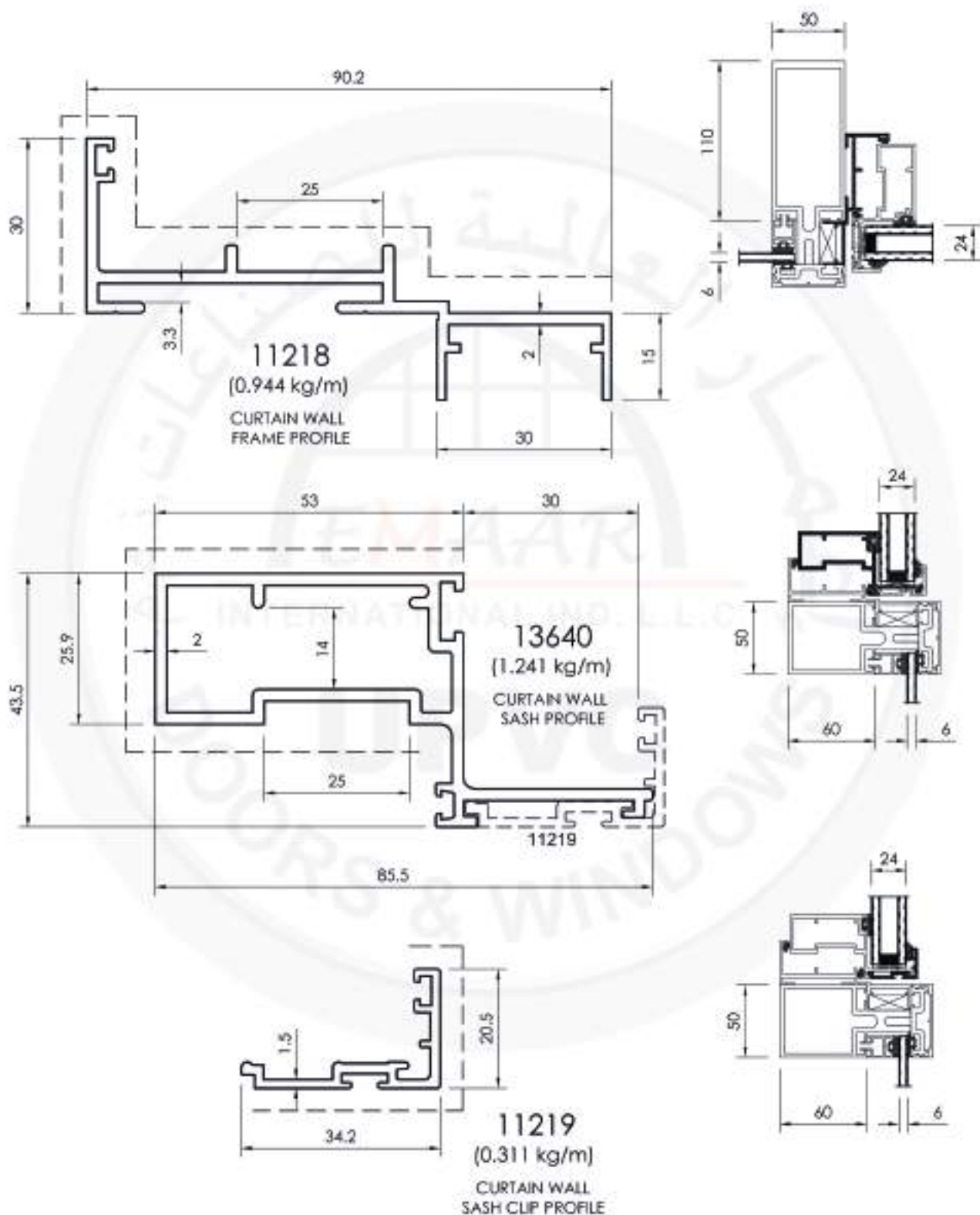
All dimensions in mm
Visible area _____

MULLION TRANSOM PROFILES



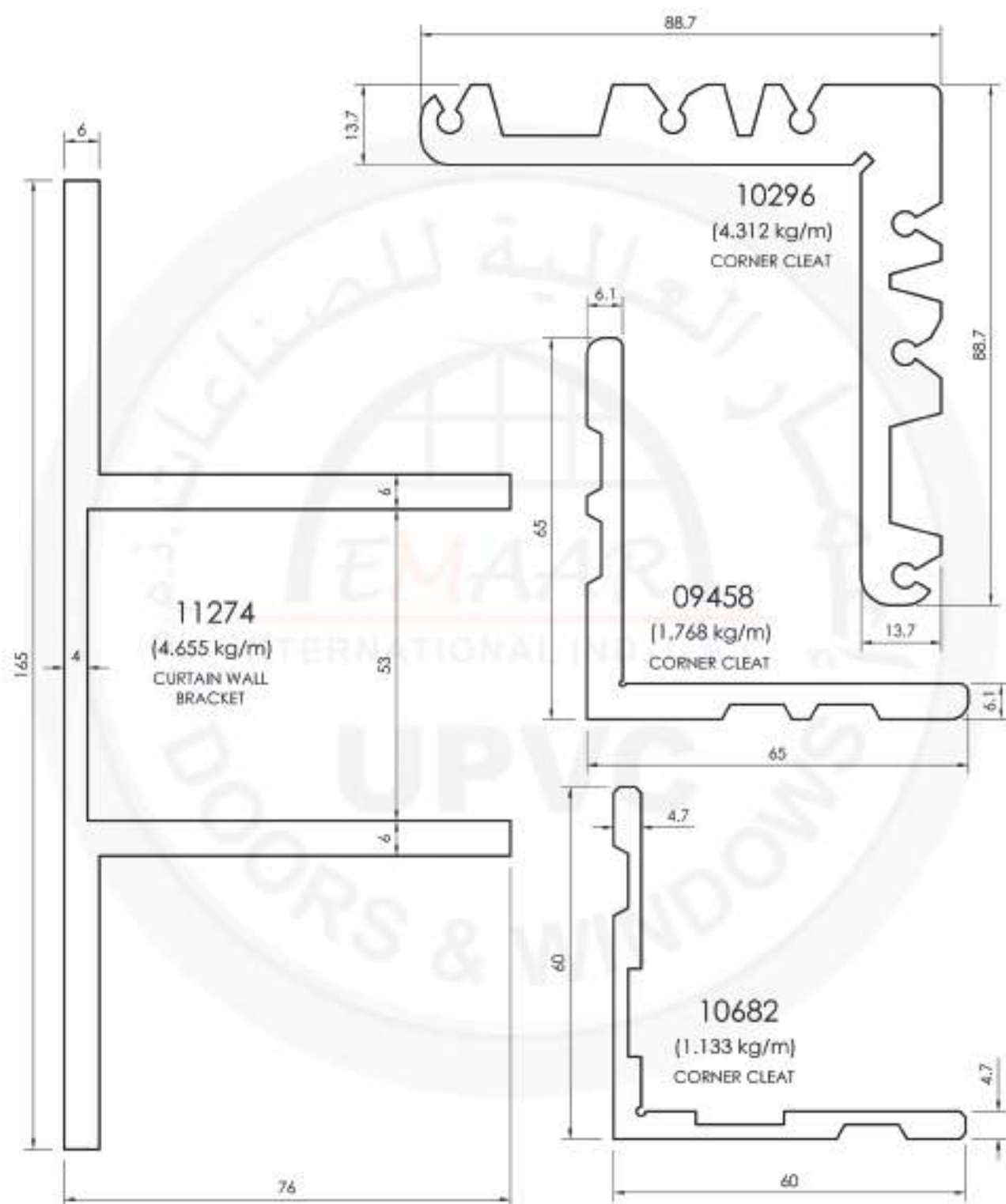
All dimensions in mm
Visible area _____

FRAME & SASH PROFILES



All dimensions in mm
Visible area -----

COMPLEMENTARY PROFILES



All dimensions in mm
Visible area_



TB-600 SERIES

- Features glass - 18mm to 38mm
- TB-600 system has been tested at Al-Futtaim Essova

Air infiltration
Water penetration
Wind resistance
Wind resistance

ASTM E283-34
ASTM E331-00 (static)
ASTM E330-02 (dynamic)
ASTM E283-00 (static)

SS 600 Thermal break and Hinged system is a unique, elegant 60mm width frame designed to achieve a better performance with a wide variety of frames available to cover the needed applications. It is designed for heavy duty use (H-HC40) according to the American National Standard. All profiles are available in all colours in order to meet today's architectural requirements, along with the possibility of bi-coloration due to the separation done by the thermal break strips.

Frame: Tubular with a width of 60mm, a wide range of frames is available to suit most of the required application in the building codes.

Sash: Tubular straight. They are 60 or 67 mm thick. A wide range available to cover all applications of doors, single and double leaves and outward openings, even swing doors.

Assembly: Assembly of the frames and sashes is done by 45° but where door bottom on profiles are custom 90°

Glazing: Standard or insulating, ranges from 18 to 27mm maintained by 3 EPDM gaskets and a glazing bead must be on the inside installation.

Sealing: Sealing is achieved by the compression of 3 EPDM gaskets pressured during closing.

INTRODUCTION TO THE SYSTEM

TB-600 Thermal break Hinged system is a unique, elegant 60mm width frame designed to achieve a better performance with a wide variety of frames available to cover the needed applications. It is designed for heavy duty use (H-HC40) according to the American National Standard. The results have been impressive to energy conservation, sound reduction, water and dust proofing.

The importance of thermal conductivity in the aluminum frame becomes apparent when one considers that the frame accounts for an average of 25% of the total window surface.

Normal Aluminum Profiles $k=5.7 \text{ W/M}^2\text{K}$
With 16mm Thermal Strip $K=3.3 \text{ W/M}^2\text{K}$

All profiles are available in all colors in order to meet today's modern architectural requirements, along with the possibility of bi-coloration due to the separation done by the thermal break strips.

For better performance of the System, Alignment cleats for the frame and the shutter are used. Durable weather sealment mastic is a must at all joints. Specially designed EPDM gaskets are made available with the system to enhance the performance and create easy assembly. Other accessories such as rollers and flush handles come as part of the system.

Sections:

The sections in gulf extrusions line are produced by extruding aluminum on a wide range of presses starting with a 800 tons to 4400 tons press. They are made of aluminum alloys 6060,6063,6082,6005 according to British Standard Specification for extrusion Dimensions Tolerances BS EN 755-9:2008 and BS EN 12020-2:2008

Frame:

Tubular with a width of 60mm,a wide range of frames is available to suit most of the required application in the building codes.

Sash:

Tubular straight. They are 60 or 67 mm thick. A wide range available to cover all applications of doors, single and double leaves and outward openings even swing doors.

Assembly:

Assembly of the frames and sashes is done by 45° cut whereas door bottom on profiles are custom 90°.

Glazing:

Standard or insulating ranges from "18 to 38"mm maintained by 3 EPDM gaskets and a glazing bead must be on the inside installation.

Sealing:

Sealing is achieved by the compression of 3 EPDM gaskets pressured during closing.

Performance:**THERMAL SYSTEM**

Casement & Turn + Tilt Window /HINGED DOOR

1. 18.6MM Polymide strip can withstand up to 220°C with high thermal resistance to reduce heat transfer from $k= 5.7 \text{ W/M}^2\text{K}$ to $K=3.0 \text{ W/M}^2\text{K}$
2. Insulated glass unit, ensuring the performance of the system interms of energy conservation and sound insulation.
3. Outer contact gasket for efficient sound insulation and sealing against water and dust.
4. Inner gasket to enhance the system performance.
5. Central sealing Gasket.
6. Special EPDM GASKETS TO HOLD GLASS IN POSITION.



HINGED 45MM

- Features glass – 4mm to 28mm
- Sliding 45mm has been tested at A-Futtaim Exova

Air infiltration	ASTM E283-G2
Water penetration	ASTM E331-G2 (static)
Wind resistance	ASTM E330-G2 (windability)
Wind resistance	ASTM E330-G2 (safety)
- Frame: 45mm & 150mm
- The system can be inward and outward opening
- The system can be used for door and window
- The system covers Arch shape, Louvers, Pivot window & swing door
- Assembly of the Frame & Sash cut 45°

The 45mm Gulf Ex. Hinged Series is a design concept to combine esthetics and performance. Full solution package is supported to fulfill the requirements to cover the needed applications. It is designed for heavy duty use according to the American National Standard. The results have been impressive.

All profiles are available in all colors in order to meet today's modern architectural requirements. For better performance of the system, alignment cleats for the frame and shutter are used.

Specially designed EPDM Gaskets are made available with the system to enhance the performance and create easy assembly. Other accessories such as rollers and handles come as part of the system.

Sections:

The sections in Gulf Extrusions line are produced by extruding aluminum on a wide range of presses starting with 800 tons to 4400 tons press. They are made of aluminum alloy 6060, 6063, 6082 and 6005 according to British Standard Specification for extrusion Dimension Tolerances BS EN 755-9:2008 and BS EN 12020-2:2008.

Frame:

Strong cross sectional profile of 45mm, a wide range of frames are available to suit most of the required applications in the building codes.

Sash:

Tubular straight, elegant and stylish of 52mm width. A wide range is available to cover all the needed applications and glass thickness.

Assembly:

Assembly of the frames is done by 45° cut same as the sashes at a custom 45° cut. All of the mounting components are made of aluminum.

Glazing:

Standard or isolating from 4 to 28mm, maintained by two EPDM joints and bead clipped at a minimum height of 22 mm (back of groove)

Bead must be on the inside of the installation.

The System consists of a different frame and different sash profile that will be used on the four sides, where this system provides the options for inward and outward opening.

The System covers arch shapes, louvers, pivot windows and swing doors.

TESTING

- Air infiltration
- Static air pressure water penetration
- Wind resistance - serviceability
- Wind resistance - safety

Air Infiltration (ASTM E283-04)**Test Pass/Fail Criteria**

At 300 pascals, the average air flow through the fixed glazing shall not exceed $2.0 \text{ m}^3/\text{hour}/\text{m}^2$ based on the gross surface area of the wall measured from the exterior.

Calculation of permissible air infiltration through the sample

Permissible airflow rate through sample $= 2.0 \text{ m}^3/\text{hour}/\text{m}^2$ at $+300 \text{ pa}$

Area of whole sample $= 0.97 \text{ m}^2$

Permissible airflow rate through sample $= 1.9 \text{ m}^3/\text{hour}$ at $+300 \text{ Pa}$

Static Air Pressure Water Penetration (ASTM E331-00)**Test Pass/Fail Criteria**

There shall be no water leakage. Water leakage is defined as penetration of water beyond a plane parallel to the glazing (the vertical plane) intersecting the innermost project of the test specimen, not including interior trim and hardware. For products with non-planar glazing surfaces (domes, vaults, pyramids, etc.) the plane defining the water penetration is the plane defined by the innermost edge of the unit frame.

Wind Resistance - Serviceability (ASTM E331-02)**Test Pass/Fail Criteria**

At both positive and negative applications of the peak test pressure, no permanent damage shall have occurred and the maximum deflection shall not exceed the following.

Framing members generally - $1/175$ of the span of the member measured between the points of attachment to the building.

Wind resistance - Safety (ASTM E330-02)**Test Pass/Fail criteria**

At both positive and negative applications of peak pressure. There shall be no permanent damage to framing member, panels or anchors.

Glazing beads and decorative cappings shall remain securely held and gaskets shall not be displaced.

Permanent deformation to wall framing members shall not exceed $1/250$ of the span measured between points of attachment one hour after loading has been removed.

Gasket / Accessories Reference	Section	Description	Unit
GE-G-002		FRONT GLAZING GASKET USED WITH THE FRAME & SASH PROFILE	Linear Meter
GE-G-003		GLAZING BEAD GASKET	Linear Meter
GE-G-005		GLAZING BEAD GASKET	Linear Meter
GE-G-011		GLAZING BEAD GASKET	Linear Meter
GE-G-012		INNER GASKET (FIXED ON TO THE SASH PROFILE)	Linear Meter
GE-G-013		OUTER CONTACT GASKET (WHERE SASH & FRAME ARE IN THE SAME PLANE) (INSERTED IN THE FRAME)	Linear Meter
GE-G-017		CENTRAL GASKET (FIXED ON TO THE FRAME PROFILE)	Linear Meter

All dimensions in mm
Visible area_-----

SLIDING 105 -

- Features glass - 6mm to 24mm
- System performance
- Sliding 105mm has been tested at Al-Futtaim Exova

Air infiltration	ASTM E283-04
Water penetration	ASTM E331-00 (drift)
Wind resistance	ASTM E330-02 (seismicity)
Wind resistance	ASTM E330-02 (safety)
Performance grade	ANSI/AAMA/NWDA (101/LS2-97)

Full solution package is supported to fulfil the requirements to cover. According to the American National Standard it is designed for heavy duty use. The results have been impressive. All profiles are available in all colours in order to meet today's modern architectural requirements.

Frame: Tubular with a width of 105mm, a wide range of frames are available to suit most of the required applications in the building codes. A 105mm frame is available to widen the use of the system. Fly screen rail is embedded in the frame. It is most for internal and external usage depending on the project requirements.

Sash: 20.5mm to 35mm Tubular straight, square and round. A wide range is available to cover all the required applications and glass thickness.

Assembly: Assembly of the frame is done by 45° cut whereas the sashes are custom 90° cut.

**Sliding TB105mm:**

The Sliding Thermal Break 105mm is a special insulated system designed for heavy commercial use. The results have been impressive and apply to energy conservation, sound reduction and water & dust proofing.

The Sliding Thermal Break 105mm with 16mm fiberglass reinforced polyamide insulation and has the sought after properties of high thermal resistance, rigidity, hardness and strength.

The importance of thermal conductivity in the aluminum frame becomes apparent when one considers that the frame accounts for an average of 25% of the total window surface.

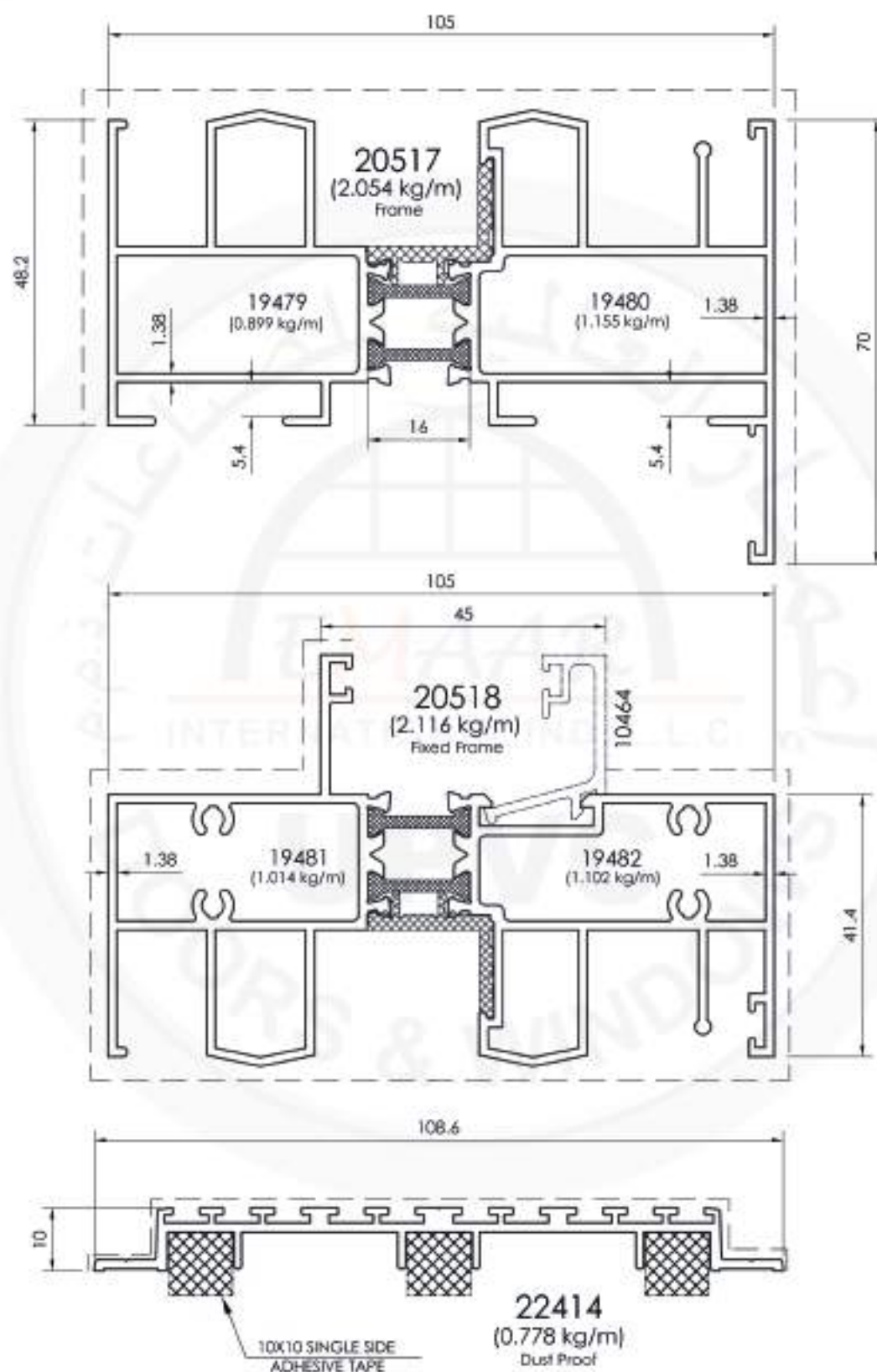
The System consists of a single frame and sash profile that will be used on all four sides. The 16mm polyamide strips are introduced into the frame and sash profiles and then externally crimped using special tooling. The compressive test of the crimped profile is tested to ensure maximum strength.

The system covers two sashes including profiles for top and bottom fixed lights. Special lids have been designed to cover the frame tracks at the area where the sliding shutter is fixed.

In order to meet the needs of today's architects, window and door systems must be provided in a variety of colors. This system has the special advantage of permitting subsequent application of all presently known surfaces suitable for use with aluminium either after or before the thermal break strips have been assembled.

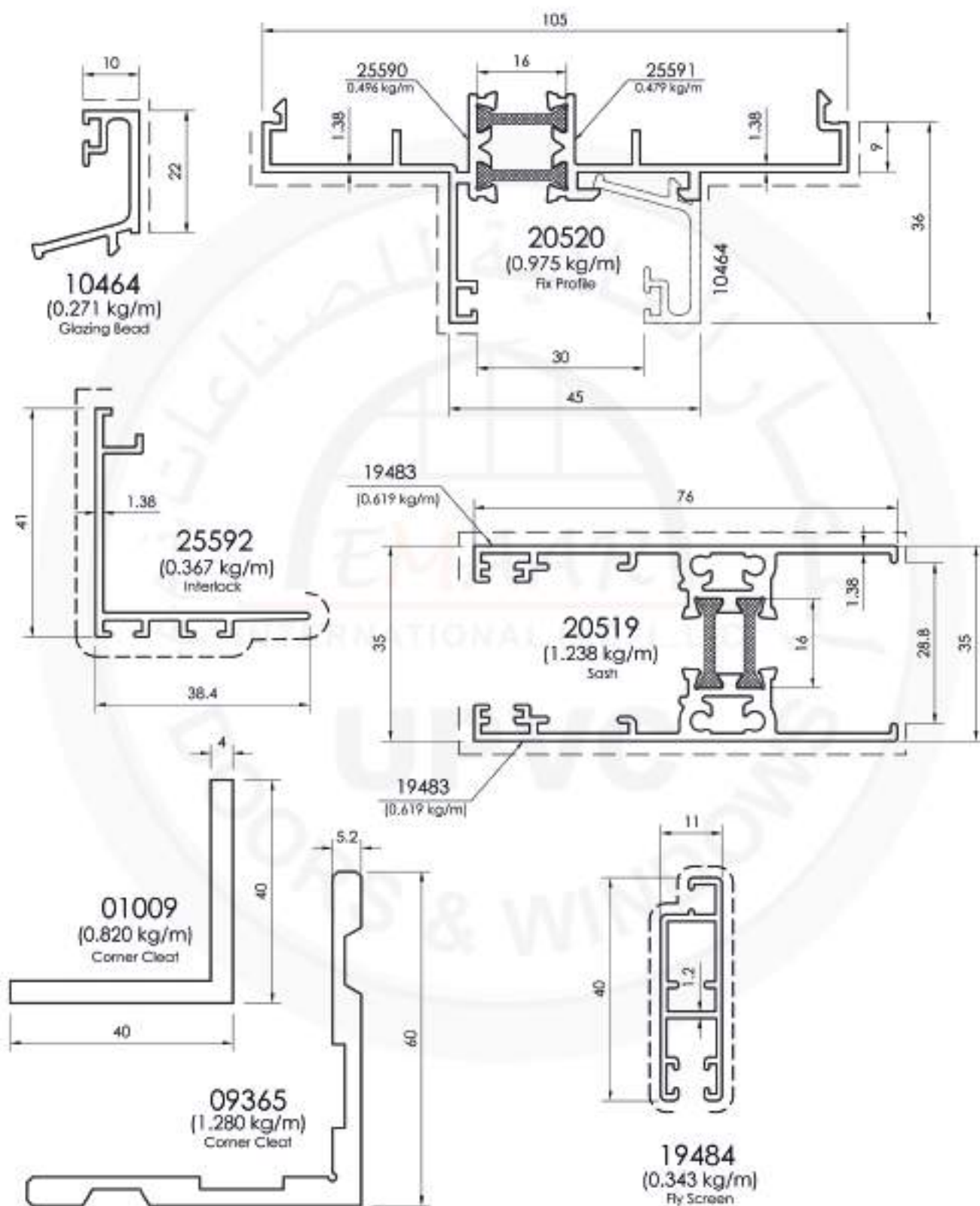
For better performance of the system, alignment cleats for the frame and shutter are used. Durable weather sealing mastic is a must at all joints. Specially designed EPDM gaskets are made available with the system to enhance the performance and create easy assembly. Other accessories such as roller & flush handles come as part of the system.

STB - 105



All dimensions in mm
Visible area_-----

STB - 105



All dimensions in mm
Visible area -----

MONTANA 120MM

- Features glass – 24mm
- Montana system has been tested at Al-Futtaim Exova

Air infiltration	ASTM E183-04
Water penetration	ASTM E331-03 (static)
Wind resistance	ASTM E330-03 (cyclically)
Wind resistance	ASTM E330-03 (static)
- Frame: 120mm
- Sash: 37.4mm
- Fly screen can be used from inside & outside
- The system covers Arch shape, two, three & four sash including profiles from top and bottom fixed lights.
- Assembly of the Frame & Sash cut 45°



The New Montana Thermal Break 120mm Sliding System is designed for heavy duty use (H-HC40) according to the American National Standard. The results have been impressive and apply to energy conservation, sound reduction and water & dust proofing.

The Montana Thermal Break with 16mm fiberglass reinforced polyamide insulation has the sought after properties of high thermal resistance, rigidity, hardness and strength.

The importance of thermal conductivity in the aluminum frame becomes apparent when one considers that the frame accounts for an average of 25% of the total window surface.

- Normal Aluminium Profiles $K=5.7W/M^2K$
- With 16mm Thermal Strip $K=3.3W/M^2K$

The System consists of a single frame and sash profile that will be used on all four sides, with snap on track-clips.

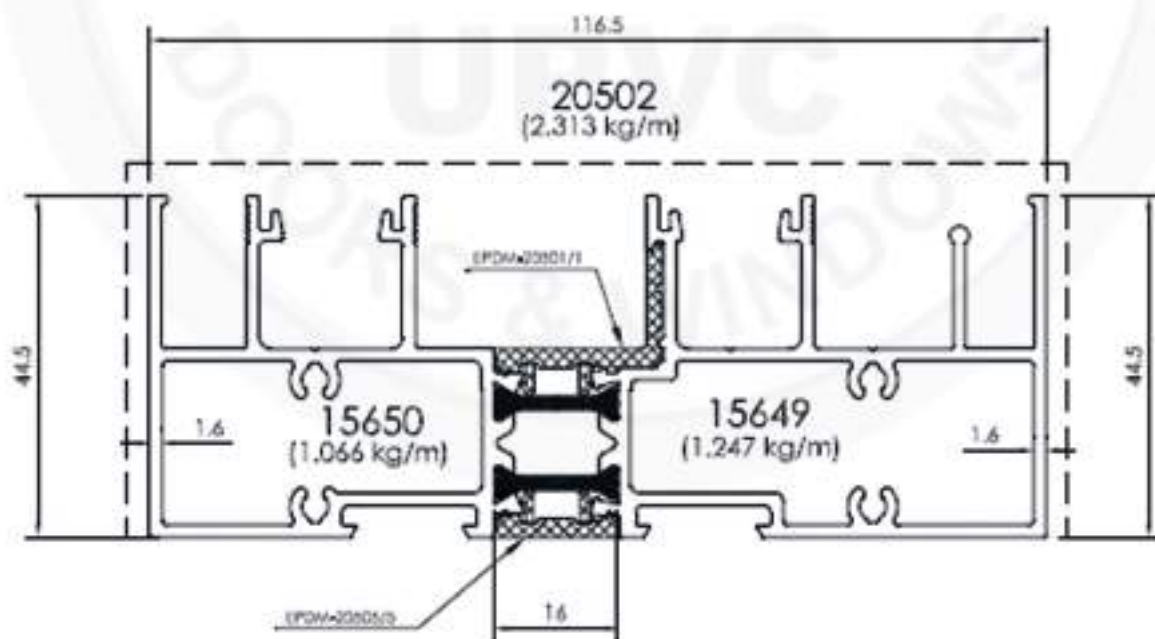
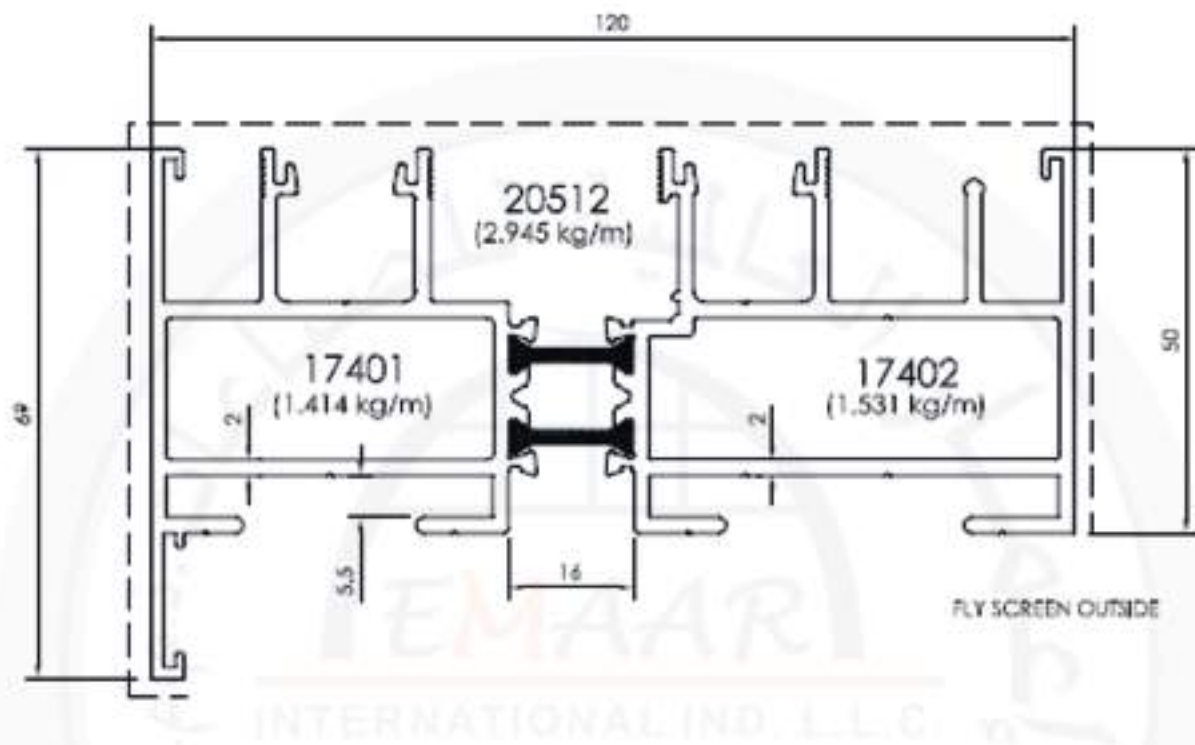
The 16mm polyamide strips are introduced into the frame and sash profiles and then externally crimped using special tooling. The compressive test of the crimped profile is tested to ensure maximum strength.

The system covers two, three and four sashes including profiles for top and bottom fixed lights. Special lids have been designed to cover the frame tracks at the area where the sliding shutter is fixed.

In order to meet the needs of today's architects, window and door systems must be provided in a variety of colors. This system has the special advantage of permitting subsequent application of all presently known surfaces suitable for use with aluminium either after or before the thermal break strips have been assembled.

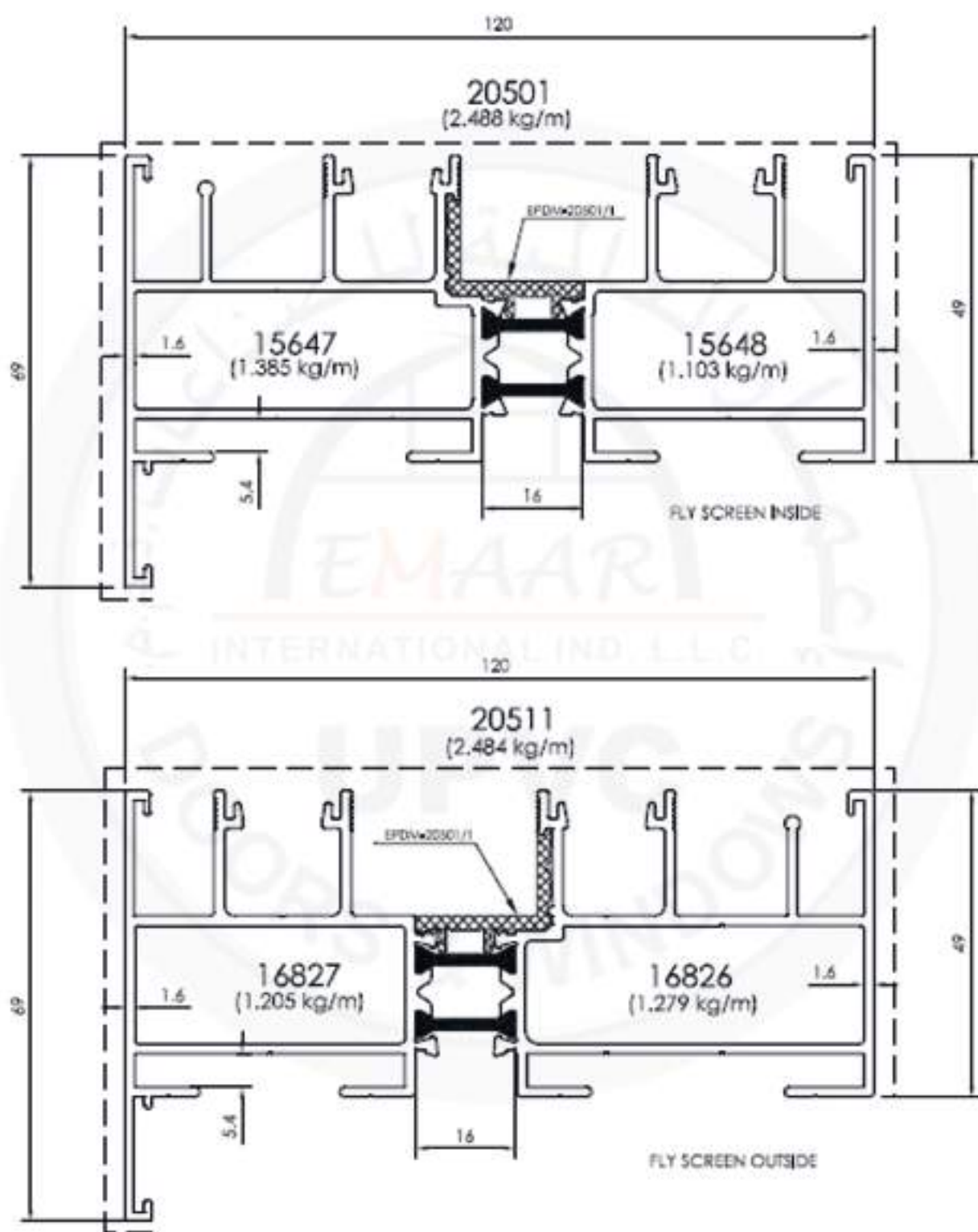
For better performance of the system, alignment cleats for the frame and shutter are used. Durable weather sealing mastic is a must at all joints. Specially designed EPDM gaskets are made available with the system to enhance the performance and create easy assembly. Other accessories such as roller & flush handles come as part of the system.

FRAME PROFILES



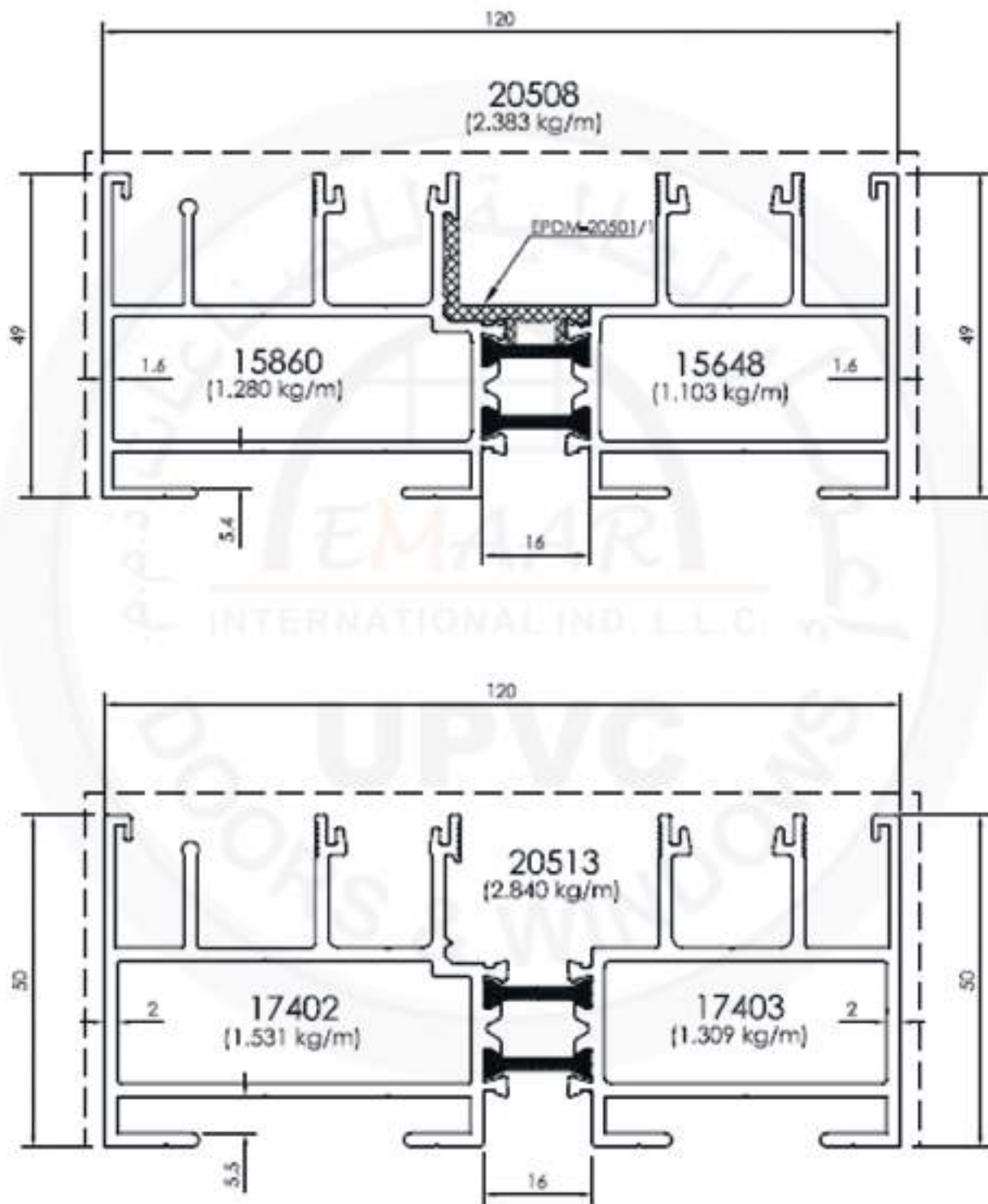
All dimensions in mm
Visible area -----

FRAME PROFILES



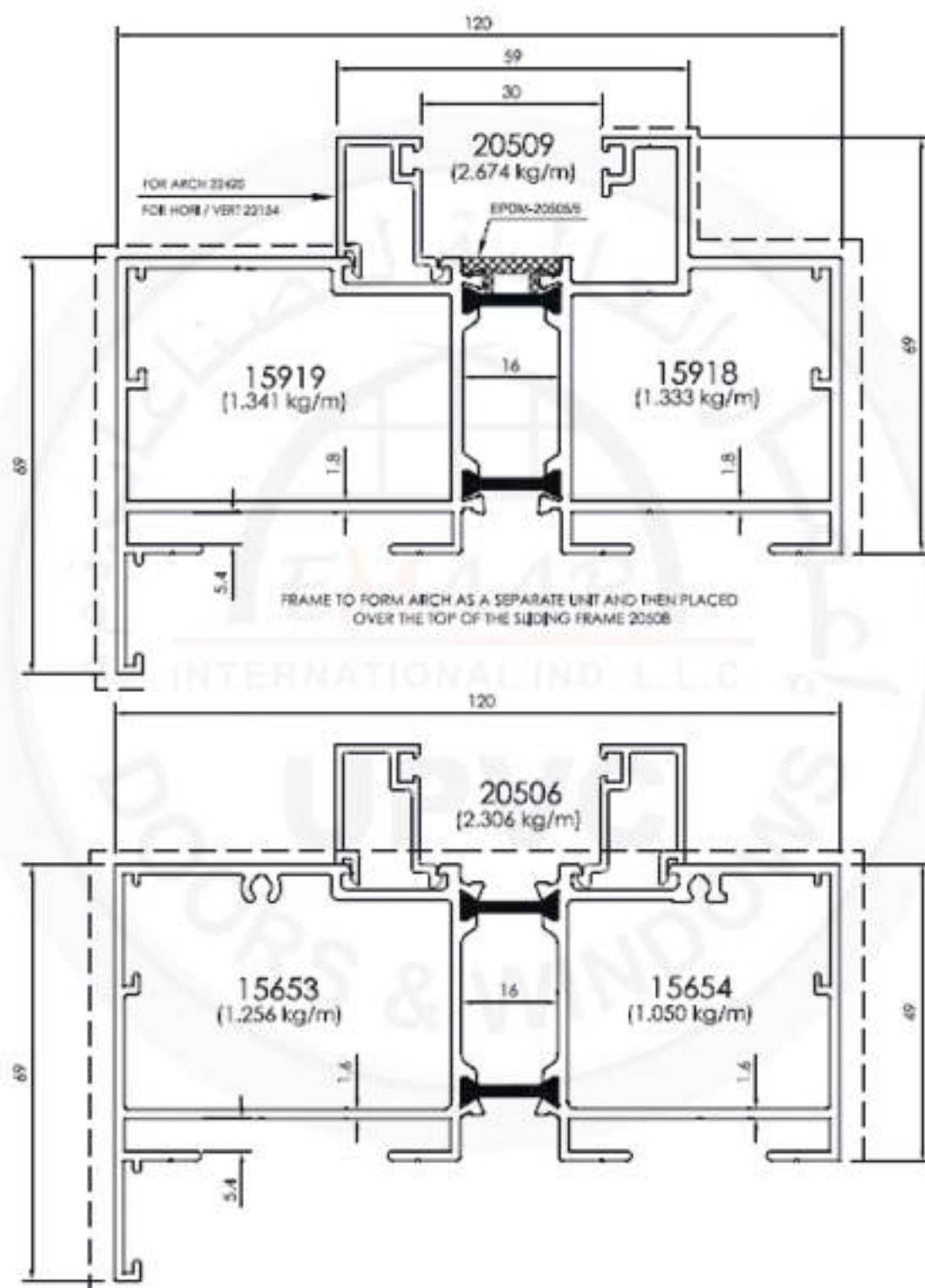
All dimensions in mm
Visible area_-----

FRAME PROFILES



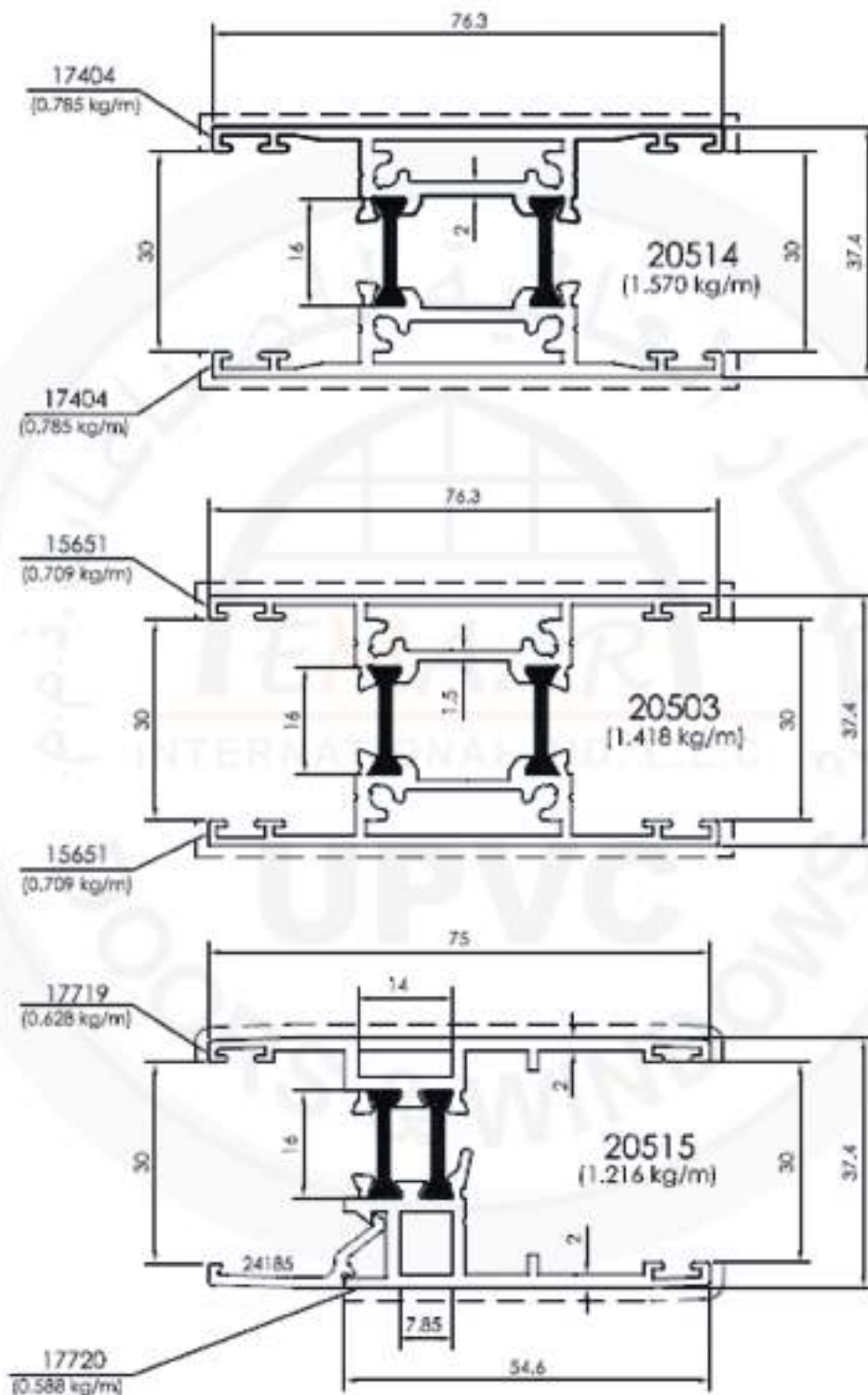
All dimensions in mm
Visible area: -----

FRAME FIXED PROFILES



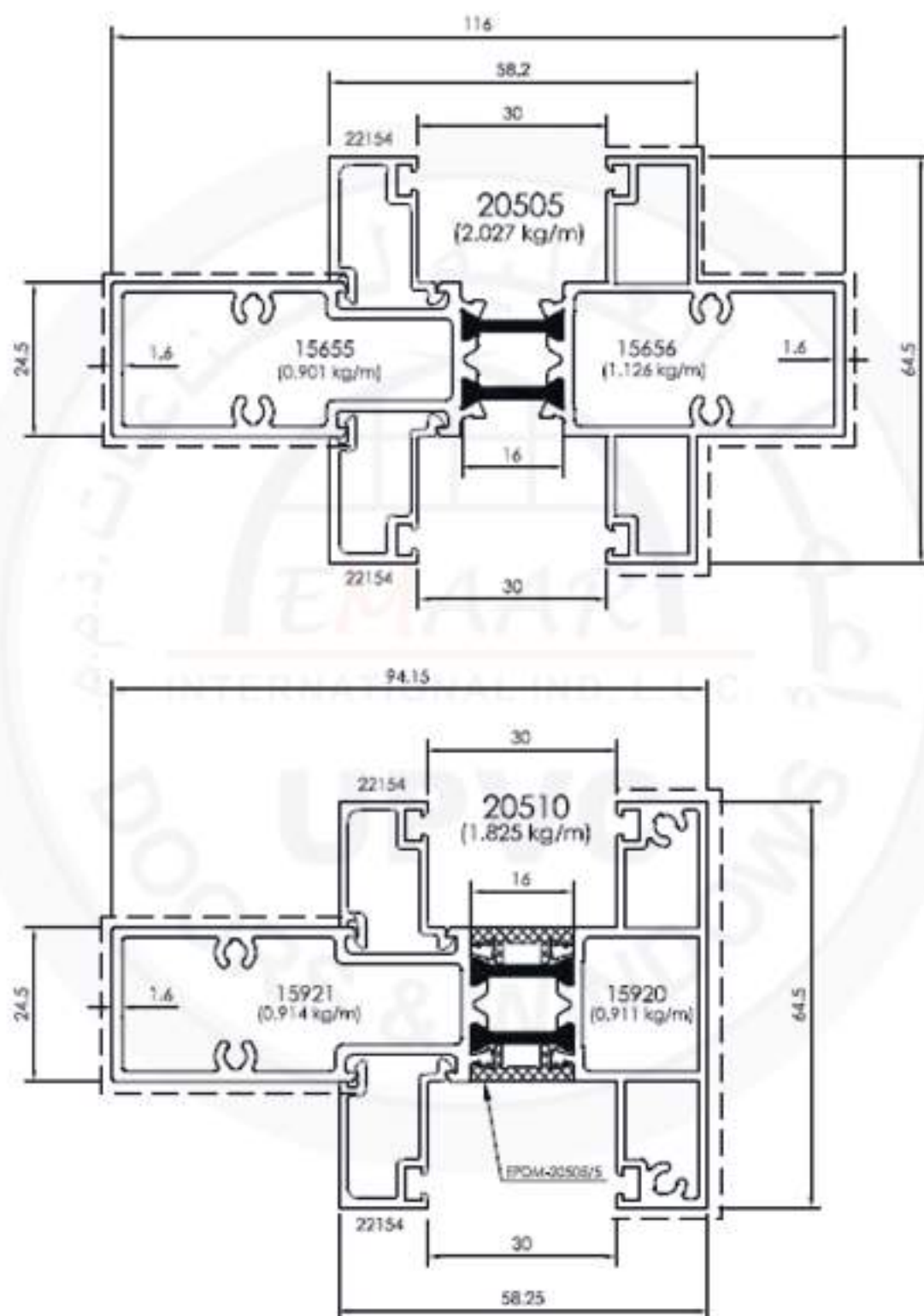
All dimensions in mm
Visible area.....

SASH PROFILES



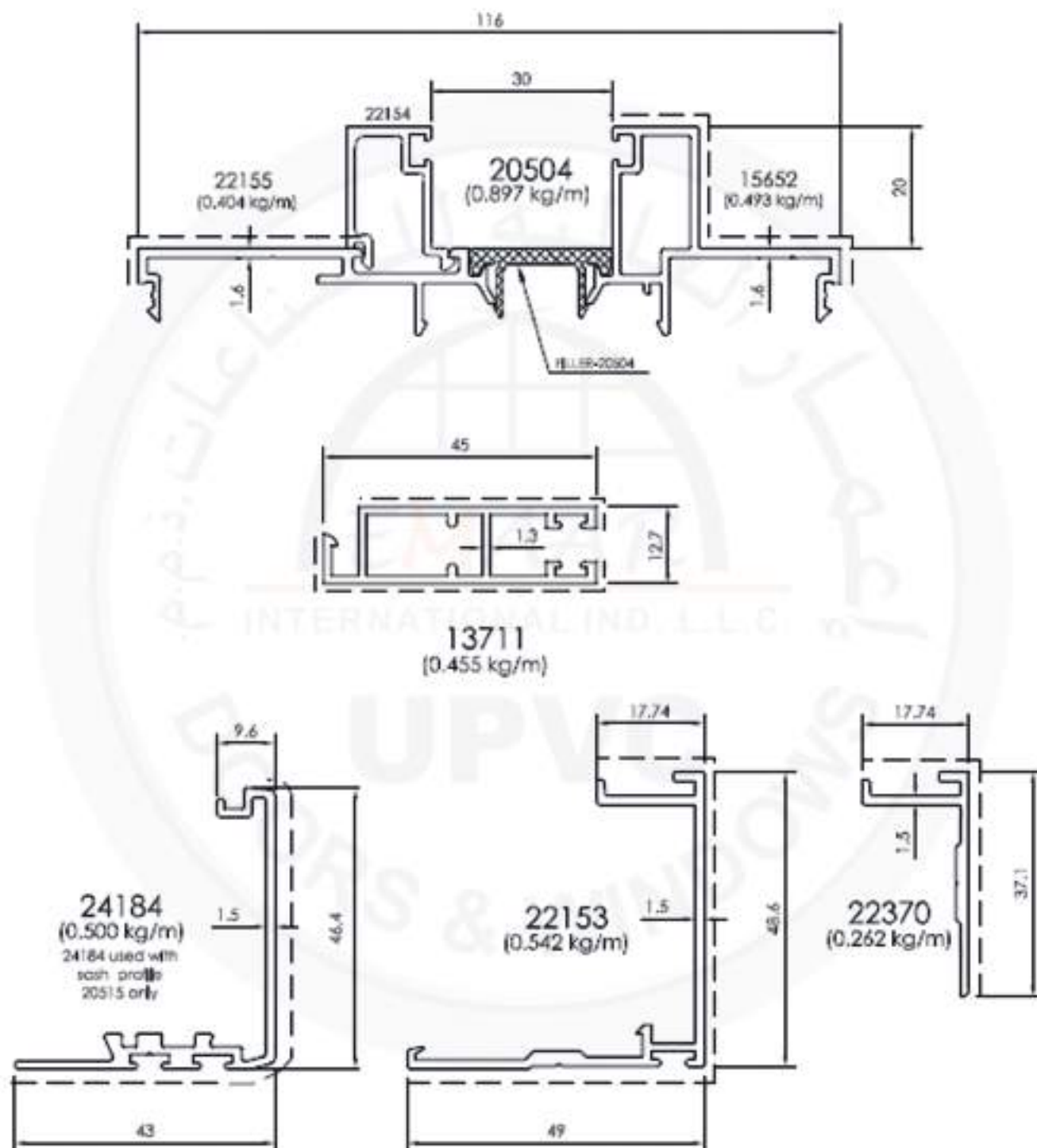
All dimensions in mm
Visible area: - - - -

TRANSOM PROFILES



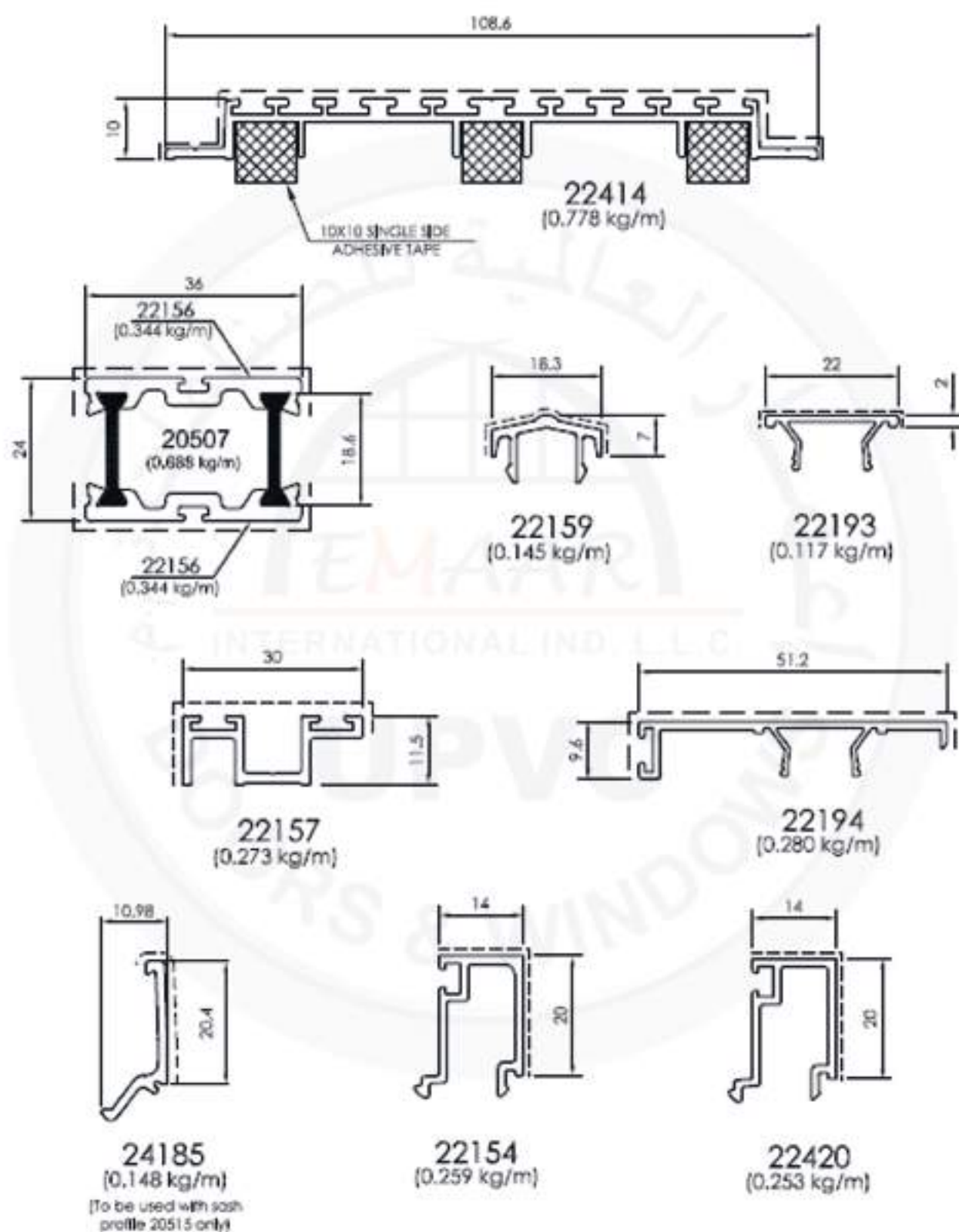
All dimensions in mm
Visible area_-----

INTERLOCK / FIX / FLYSCREEN PROFILES



All dimensions in mm
Visible area -----

COMPLEMENTARY PROFILES



All dimensions in mm
Visible area_-----

Factory

production lanes

Aluminium Production Lane



Crimping Machine



Single head cutting machine manual



Single head cutting machine manual



Single head cutting machine manual



Table



Table



Hole machine

Lock milling machine



Stand



Table



Table



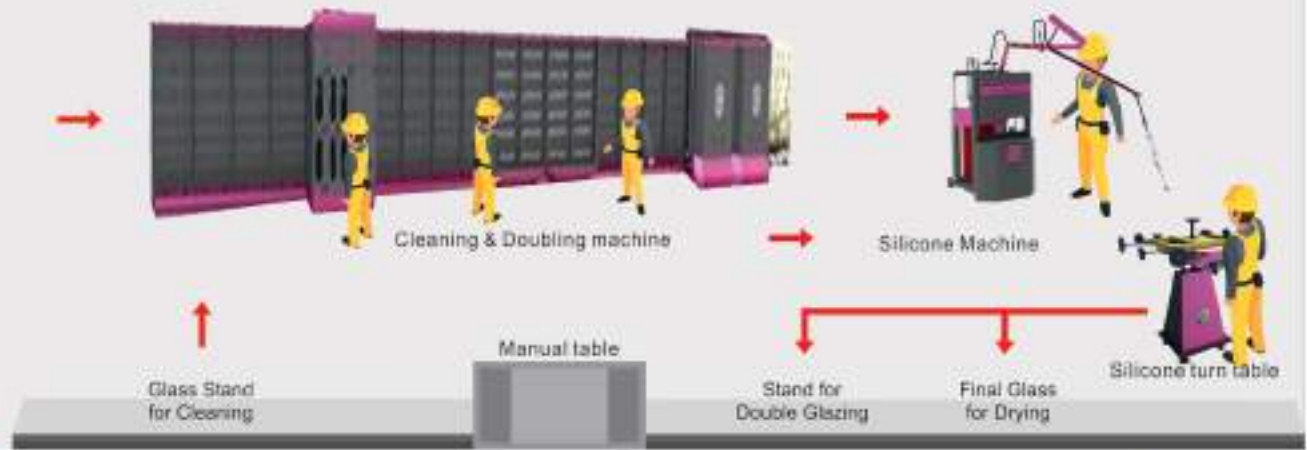
Table



Mullion milling machine



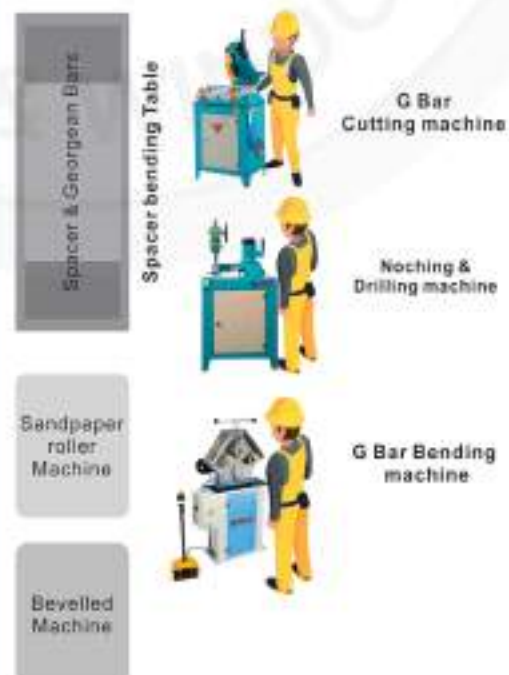
Single head auto machine



PASSAGE

PASSAGE

PASSAGE



Glass Production Lane





PASSAGE



PASSAGE



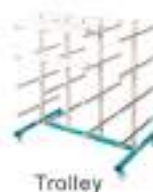
PASSAGE



Full Auto Double head cutting machine



Trolley



Trolley



Copy routing



Triple wheel slot machine



Drill Press



Steel screwing machine



Drill Press

Assembly Station



S-1



S-2



S-3



S-4



S-5



S-6



S-1



S-2

Beading



Glazing Bead Cutting Machine



Double head welding



CNC corner clearing machine



Single head welding



Multi head milling machine



Bending machine

UPVC Production Lane 1

PASSAGE



PASSAGE



PASSAGE



PASSAGE



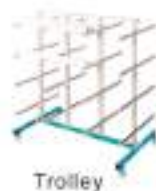
PASSAGE



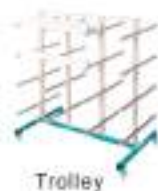
UPVC Profile Trolley



Full Auto Double head cutting machine



Trolley



Trolley



Copy routing



Triple wheel slot machine



Drill Press



Steel screwing machine



Drill Press



Double head welding

CNC corner cleaning machine

Single head welding

Mullion milling machine

Beading



Glazing Bead Cutting Machine



S-2



S-1



S-1



S-2



S-3



S-4



S-5



S-6

Assembly Station



Bending machine

UPVC Production
Lane 2





Productivity

UPVC

150 - 160 FRAMES / DAY

ALUMINIUM

70 - 80 FRAMES / DAY

GLASS

400 - 500 SQ / DAY





**OUR
PROJECTS**



























































































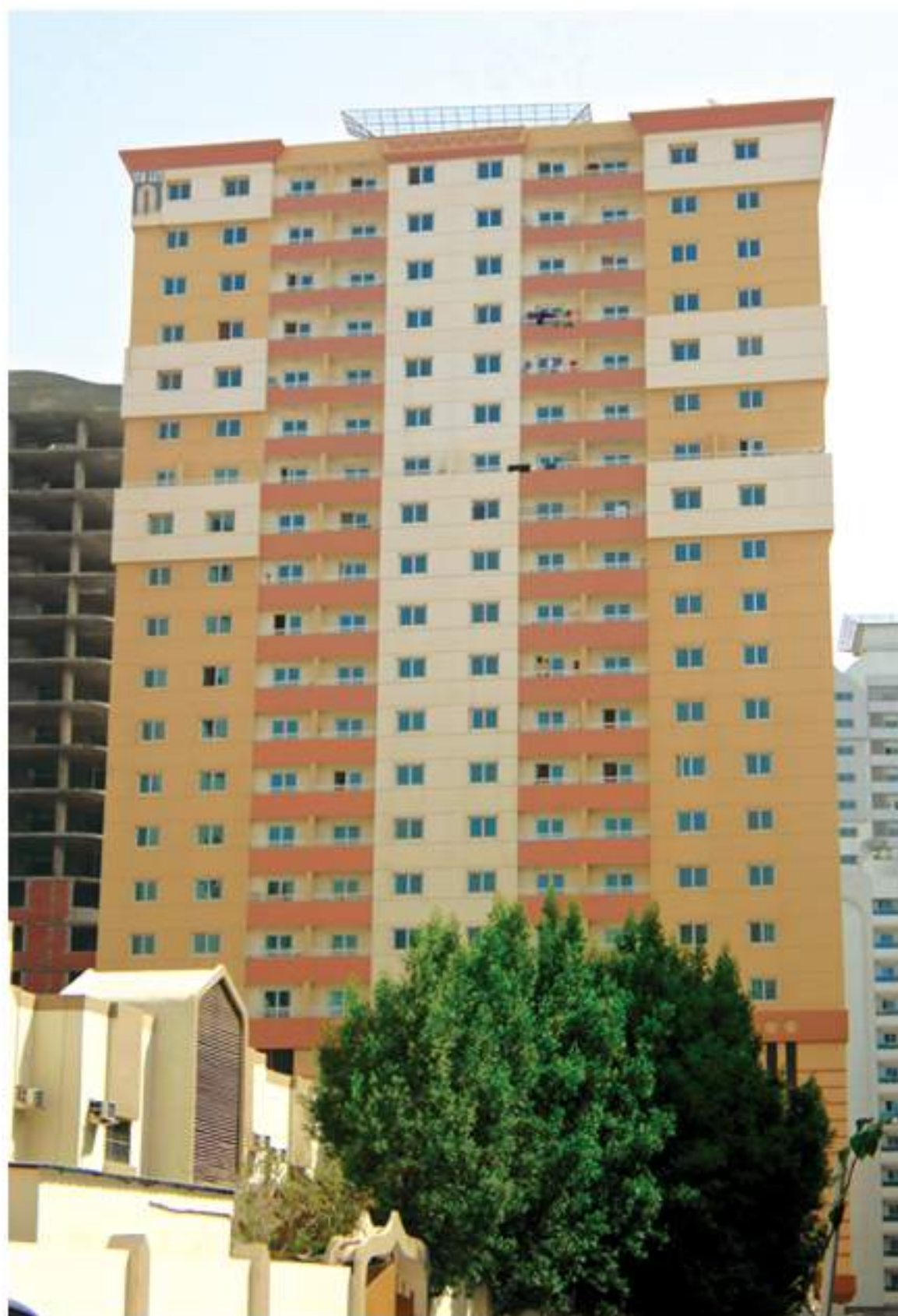










































OUR EMPLOYEES

OUR DEDICATED STAFFS & FACTORY WORKERS





















Thanks
for your co-operation



@CONTACT CARD



@CATALOGUE



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خدمة العملاء