



***NOBLE***  
**chemical materials LLC**

# ABOUT US

**Noble Chemical Materials L.L.C.** is a trusted supplier of quality chemicals, materials and machinery for use in a range of industries. Our involvement with our customer goes back many years, providing us with a wealth of experience. We represent a number of international companies throughout the continent and specialised in providing reliable and innovative supply solutions for our customers.

**Noble Chemical Materials L.L.C.** was develop by Mr. Majid Andraos, the Founder and the Owner of the Company. It was established since 2004 and until now it continue to grow with the higher market.

**Noble Chemical Materials L.L.C.** has been established in the Polyurethane Industry as a premier supplier of Polyols, TDI, MDI , PU Foam Additives and Machinery for Mattresses.



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# Our Services

**As per Customer's Requirements, we are committed to meet your satisfaction. As we provide good quality products and services.**

- We are providing Formulation Guide for our customers
- We are assisting with Material Selection, Product Application, and Technical Support
- We are distributing Polyol, TDI, MDI, Additive Products for Flexible /Rigid Foam Manufacturing and Scrap Foam
- Our Company can provide all type of Machines for Mattresses such as from Producing of Foam, Molding, Cutting, and as well as for Foam: Trimming, Crushing, Re-bonding & Polishing
- We also have Machines for Laminating, Mattress Compressor, Exhausting, Foam Sheet (Jointing, Winding & Metering), Peeling, Boring, Baling, Quilting and Tape Edge





# Why Noble Chemicals ?

- ✓ Product quality assurance
- ✓ Customers' trust
- ✓ Competitive prices at the best conditions
- ✓ Constant Market Research
- ✓ Highly qualified staff
- ✓ Successful team
- ✓ Professional work with the clients
- ✓ Qualified assistance and support at all stages of the deal



# Our advantages

- Saving your time by offering our best prices for high quality materials
- Individual approach to the offered terms of cooperation
- Guaranteed High quality products and services
- Openness to cooperation on the best conditions
- We deliver to the Global Market on Time

# Goals and objectives

- Strengthening of existing position in the market
- Expanding to new Markets
- The implementation of customer-oriented approach in the course of its activities
- Maintaining and expanding the customer base
- Focusing on long business cooperation with new and existing customers

# Our Products Uses

**Flexible Foam**



**Memory Foam**



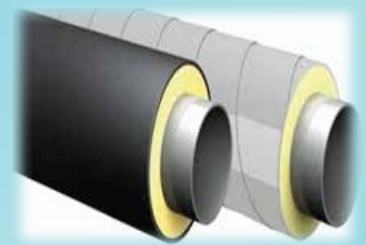
**Rebound Foam**



**Rigid Foam**



**Plastic and pipe insulation**



# Our Products List:

## Flexible Polyether Foam

### 1- Polyols

Product	Viscosity Number	Hydroxyl Content	Water	Color	Use
Conventional 3000MW	440-480	54-58	Max 0.06	Clear	Flexible PU Slab Stock Foam
Conventional 3500MW	520-580	46-50	Max 0.08	Clear	
Polymeric 10% Solid	675-925	42-46	Max 0.1	White	High Load Bearing Flexible PU
Polymeric 13.5% Solid	600-950	46-50	Max 0.08	White	
Polymeric 15% Solid	850-1100	39-43.5	Max 0.1	White	
Polymeric 25% Solid	1050-1450	39-46	Max 0.08	White	
Polymeric 45% Solid	Max 5000	28-32	Max 0.08	White	

### 2- TDI 80/20

Product	Acidity	Hydrolysable Chlorine	Molecular Weight	Color	Use
TDI 80/20	Max 20PPM	Max 0.01%	174.16	White to Pale Yellow	Flexible PU Foam

### 3- MDI

Product	Viscosity	NCO Content	Acid Content	Color	Use
Polymeric MDI	150-230	30-32 %wt	Max 0.1	Yellow to Brown	Hard, Semi-Hard
Rebounding Agent (Pre-Polymer MDI)	Max 1200	19.5-20.1	Max 0.1	Brownish	Rebounded Foam Blocks

## 4- Methylene Chloride

Product	Purity	Moisture	Acidity	Color	Use
Methylene Chloride	99.95%	Max 0.004	0.0004	Clear	Foam Blowing, Metal Cleaning

## 5- Cyclopentane 95%

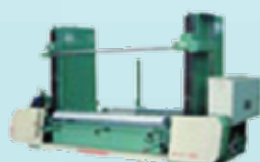
Product	Specific Gravity	Water Content (Wt ppm)	Benzene (Wt ppm)	Color	Use
Cyclopentane	99.95%	Max 100	Max 5	Clear	Foam Blowing, Metal Cleaning

## 6- Scrap (Trim) Foam

Product	Container Weight	Country of Origin	Content
Grade A	20 MT +5%	Europe	100% non-Used Flexible Foam, 0% Skin 0% Memory Foam
Grade B	20 MT +5%	Europe	75-80% non-Used Flexible Foam 20-25% Skin content 0% Memory Foam

## 7- Machinery

- Foam Cutting Machine.
- Foam Continuous and Batch Machines.
- Sewing Machine.
- Packing Machine.
- Racking Systems.
- Etc....

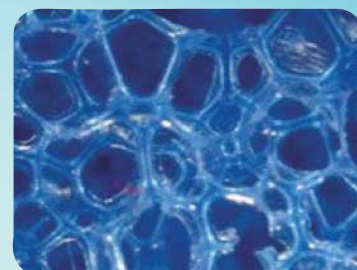
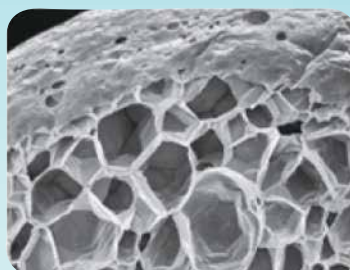




# Flexible Polyether Additives

## I - Silicon Surfactant:

- Control Cell Formation
- Excellent Stabilization
- Broad Processing Latitude



Product	Density	Viscosity	Water Solubility	Color	Smell
Slap Stock Silicon	All Density	Below 700	Soluble	Clear	NO
Memory Foam Silicon	Memory Foam	Below 700	Soluble	Clear	NO
Fire Retardant Silicon	FR Foam	Below 1000	Soluble	Clear	NO

## II - Catalysts:

- Control CT/RT
- Blowing Agents

Product	Viscosity	Remarks
Tin Catalyst	Below 2000	T-9
Amine Catalyst	Below 200	Amine A-33
Amine Catalyst	Below 20	Amine A-1
Amine Mixture	Below 50	Mixture 75% A-33 and 25% A-1

## III - Bonding glues:

- Solvent Type.
- Water Type.

## IV - Anti-Splitting Agent:

- To eliminate the splitting when using calcium carbonate powder.

## V - Foam elongator:

- Supplies the produced foam with elasticity.

## VI - Foam Hardener:

- To increase the hardness of the foam.

## VII - Foam Softener:

- To decrease the hardness of the foam.

## VIII - Fire Retardant:

- To add the flame resistance property to the foam.

## IX - PU Colorants:

- All range of high quality, low viscosity and high dispersion factor colorants.

## X - Anti-Discoloring Agent.

## XI - Anti-Scorching Agent.

## XII - Anti-Static Agent.

## XIII - Anti-Bacteria Agent.



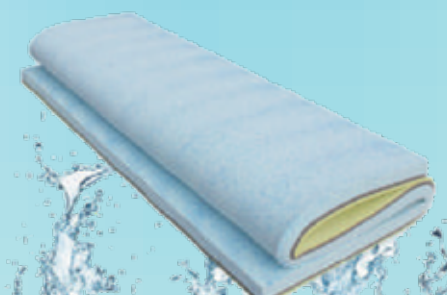
# Visco-Elastic System House (Memory Ready System):

This system can be designed as per the customer's needs and can adjust the following properties:

Density / Hardness / Recovery Time / Surface Softness / Tear and Tensile Strength /  
Temperature Sensitivity / Cell Openness.

Available Densities:

40, 50, 55, 60 Kg/m<sup>3</sup>



# Formulation sample for different PU foam densities using our foam hardener:

## - 15 Kg Density with POP 45% Recipe:

	Product	Hardener 20%		Hardener 30%			Hardener 40%		
		1	2	1	2	3	1	2	3
1	Conventional 3000MW	80	80	70	70	70	60	60	60
2	POP 45%	20	10	30	20	10	40	30	20
3	Foam Hardener 670	-	10	-	10	20	-	10	20
4	H <sub>2</sub> O	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
5	MC	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
6	Silicon Catalyst	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
7	Amine A-33	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8	Tin Catalyst	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
9	TDI	66.87	68.11	66.40	67.65	68.90	65.94	67.19	68.44
10	TDI Index	115	115	115	115	115	115	115	115
11	ILD Hardness (25%, Kgf)	10.7	11.9	11.2	13.4	13.0	12.0	14.0	14.1

## - 18 Kg Density with POP 45% Recipe:

	Product	Hardener 20%		Hardener 30%			Hardener 40%		
		1	2	1	2	3	1	2	3
1	Conventional 3000MW	80	80	70	70	70	60	60	60
2	POP 45%	20	10	30	20	10	40	30	20
3	Foam Hardener 670	-	10	-	10	20	-	10	20
4	H <sub>2</sub> O	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5	MC	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
6	Silicon Catalyst	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
7	Amine A-33	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
8	Tin Catalyst	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
9	TDI	59.08	60.33	58.62	59.87	61.12	58.16	59.41	60.65
10	TDI Index	115	115	115	115	115	115	115	115
11	ILD Hardness (25%, Kgf)	9.1	10.7	10.0	11.6	12.7	10.5	12.8	13.4

## - 30 Kg Density with POP 45% Recipe:

	Product	Hardener 20%		Hardener 30%			Hardener 40%		
		1	2	1	2	3	1	2	3
1	Conventional 3000MW	80	80	70	70	70	60	60	60
2	POP 45%	20	10	30	20	10	40	30	20
3	Foam Hardener 670	-	10	-	10	20	-	10	20
4	H <sub>2</sub> O	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15
6	Silicon Catalyst	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
7	Amine A-33	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
8	Tin Catalyst	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
9	TDI	44.08	45.33	43.61	44.86	46.11	43.15	44.40	45.65
10	TDI Index	115	115	115	115	115	115	115	115
11	ILD Hardness (25%, Kgf)	16.6	17.1	17.2	18.0	19.3	19.9	20.4	21.8



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