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# THERMAL INSULATION

# RAVATHERM



RAVATHERM XPS<sup>™</sup> blue extruded polystyrene boards provide long term thermal performance and compressive strength required in today's buildings and engineering projects throughout the life of the building. RAVATHERM XPS<sup>™</sup> products has the highest performance products in the field. RAVATHERM XPS<sup>™</sup> can be used in the following application areas:

- Exterior walls (ETICS/EIFS)
- Internal walls
- Inverted roofs (PMR)
- Foundations and perimeter walls
- Load bearing floors
- Thermal bridges

#### **RAVATHERM XPS™** product key features;

- Closed cell structure, water resistant
- Dimensional stability
- Lifetime high thermal resistance
- High compressive strength

RAVATHERM XPS<sup>™</sup> products are produced in compliance with EN 13164 & Construction Products Directive. (305/2011/EU)

 RAVATHERM XPS T 300 SL: Used in thermal insulation details of foundations and inverted roofs
RAVATHERM XPS T 200 SL: Used in thermal insulation details of floors and slabs.

• RAVATHERM XPS T SHAPE L: Used for external insulation of walls.

• RAVATHERM XPS T 200 PL: Used for internal insulation of walls.

• RAVATHERM XPS PLUS T 500 : Inverted & garden roofs, protected membrane roofing (PMR), foundations. High load bearing structures and traffic load.

For thermal insulation applications that will be exposed to continuous load, RAVATHERM XPS PLUS T 500 SL and RAVATHERM XPS PLUS T 700 SL products offer perfect solutions with their high long-term load resistance.

All RAVATHERM XPS<sup>™</sup> products manufactured in our Dilovası facilities are manufactured in accordance with EN 13164 standard and bear CE marking.



# **Technical Specifications**

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# **RAVATHERM**<sup>™</sup>

FEATURES	STANDART	RAVATHERM XPS™ T SHAPE L	RAVATHERM XPS™ T 200 PL	RAVATHERM XPS™ T 300 SL	RAVATHERM XPS™ T 200 SL	RAVATHERM XPS™ T 500 SL
CE marked in accordance with the building materials directive (89/106/EEC)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	V	$\checkmark$
Public Works unit price Item No:		04.612/4C-1B	04.612/4C-1B	04.612/4C-2B	04.612/4C-2A	04.612/4C-2D2
Thermal conductivity value $\lambda_{_{D}}$ EN (Declared $\lambda_{_{90/90}}$ value)	EN 13164	0,031W/mK	0,031W/mK	0,031W/mK	0,031W/mK	0.029 W/mK
Fire resistance	EN 13501-1	E class	E class	E class	E class	E class
Density	EN 13164	Minimum 30kg/m <sup>3</sup>	Minimum 30kg/m <sup>3</sup>	Minimum 32kg/m <sup>3</sup>	Minimum 30kg/m <sup>3</sup>	Minimum 38 kg/m <sup>3</sup>
Dimensional stability at the specified temperature and humidity conditions $(23 \pm 2)^{\circ}$ C and $(90 \pm 5)\%$ relative humidity after 48 hours	EN 13164	DS (TH)	DS (TH)	-	DS (TH)	DS (70,90)
Deformation under specified compression load and temperature conditions	EN 13164	_	-	DLT (2) 5	-	DLT (2) 5
Compression strength (min.) 10% deformation	EN 13164	CS (10/Y) 200kPa	CS (10/Y) /200kPa	CS (10/Y) 300 kPa	CS (10/Y) 200kPa	CS (10/Y) 500 kPa
Compression Creep (50 years)	EN 13164	-	-	CC (2/1,5/50)90	-	CC (2/1,5/50) 140
Long water absorption by diffusion	EN 13164	-	-	WD (V) 3	-	WD (V) 2/3
Long-time water absorption with full immersion	EN 13164	WL (T) ≤ % 1.5	WL (T) ≤ % 1.5	WL (T) ≤ % 0.7	WL (T) ≤ % 0.7	WL (T) $\le$ %0.7
Freeze-thaw resistance	EN 13164	_	-	FT2	-	FTCD 1
Coefficient of water vapour diffusion resistance (μ)	EN 13164	80	100	200	150	150
Modulus of elasticity under pressure (min.)	EN 13164	_	-	12000kPa	-	25000 kPa
Max. use temperature		+75°C	+75°C	+75°C	+75°C	+75°C
Coefficient of linear elongation		0,07mm/mk	0,07mm/mk	0,07mm/mk	0,07mm/mk	0,07mm/mk
Capillarity		None	None	None	None	None
Dimensions		Length: 1250 mm Width: 600 mm Thickness: 30, 40, 50, 60,80mm	Length: 2650 mm Width: 600 mm Thickness: 30, 40, 50,60mm	Length: 1250 mm Width: 600 mm Thickness:30, 40, 50, 60, 80,100mm	Length: 1200 mm Width: 600 mm Thickness: 30, 40, 50, 60,80, 100mm	Length: 1250 mm Width: 600 mm Thickness: 50, 60, 80,100mm
Surface characteristic		Planed and grooved back surface	Planed	Skinned	Skinned	Skinned
Edge profiled		Ship Lap	Ship Lap / Butt Edge	Ship Lap	Ship Lap	Ship Lap
Implementation		External wall	Internal wall	Inverted terrace and garden roof, foundation, curtain wall	Floor	Inverted terrace, garden roof, foundation curtain wall, cold storage, details to be under continuous load

# THERMAL INSULATION



RAVATHERM stone wool is produced in various sizes and densities in facilities established with a capacity of 120.000 tonnes on an area of 80.000 m<sup>2</sup>, 56.000 m<sup>2</sup> of which is closed area. It is a thermal, sound and fire insulation material containing 97% natural raw material, which is formed by melting basalt stone between 1400 °C -1500 °C and turning it into fibre. It can be produced between 40 and 200 kg/m<sup>3</sup> density range. It is A1 class fireproof material and its usage temperature is in the range of -55°C/+750°C.

Thanks to its long fibre structure, stone wool provides maximum insulation by providing regular distribution of the air it traps and better separation from the external environment. The iron in the raw material can be separated during the production process. Thanks to this high technology, products with long fibre structure can be produced. Long fibre structure provides edge and surface smoothness in cutting and lamination processes.









THERMAL

FIRE SOUND INSULATION RESISTANCE INSULATION MOISTURE

#### Areas of Usage:

- Partition Walls
- Exterior Insulation
- Ventilated Facades
- Floors
- Terrace Roofs
- Industrial Insulation
- Mechanical Insulation







## INSULATION



Stone wool product group has a thermal conductivity value of  $\lambda$ =0.035 W/mK within the scope of the thermal insulation regulation of the buildings, and designed to provide comfort to our living spaces by preventing the leakage of cold in winter and heat in summer.



Providing 40-90% sound insulation according to EN ISO standards, Ravatherm Stone Wool is a material that can absorb sound very well. It complies with the regulation on the protection of buildings against noise and provides sound insulation with its noise-reducing feature.



With its water vapor diffusion resistance as  $\mu=1$ , (same value as air) Ravatherm Stone Wool does not corrode and oxidate thanks to its structure that does not allow rotting, deterioration or mold. It offers long-lasting and effective solutions for waterproofing and moisture insulation of buildings.





# **QUALITY**

With our certificates from national and international laboratories and certification bodies, we always keep our quality the world standards.

Thanks to each certificate we are entitled to receive in order to ensure the satisfaction of our customers. we gain the trust of the sector even more, and continue all our work and investments with our focus on quality, from the processes of production to distribution.



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BCDEFG









# RAVATHERM STONEWOOL PRODUCTION

Located in Kayseri on a total area of 80.000 m<sup>2</sup>, 56.000 m<sup>2</sup> of which is closed, with advanced technology equipment investments, RAVATHERM is the largest stone wool manufacturer with an annual production capacity of 120.000 tonnes in Turkey.

RAVATHERM, which produces 25 different types of stone wool products in various sizes and densities, as well as ceramic fiber.



# MECHANICAL AND TECHNICAL INSULATION

# RAVATHERM

RAVATHERM Mineral Wool products consist of 80% recycled glass, the raw material of which is mainly sand. RAVATHERM Mineral Wool is an insulation material obtained by melting silica sand at approximately 1250°C and turning it into fibre. The temperature of use, which varies according to the product type, is in the range of -50 / +250°C.

#### **Product Types:**

- Roof Mattress
- Façade boards
- Partition Boards
- Collector Mattress
- Air Conditioner Mattress
- Air Conditioner Boards
- Prefabricated Pipe



#### **Product Features:**

- Low Thermal Conductivity Value
- High thermal resistance
- High Sound Insulation Value
- Maximum Resistance to Thermal Loss
- Quick and Easy Installation
- Reaction to Fire Class : A1



#### Areas of Usage

- Roof Insulation
- Facade Insulation
- Ventilation Duct Heat and Sound Insulation
- Pipe Installations in Thermal Insulation
- Industrial Thermal and Sound Insulation

# MECHANICAL AND TECHNICAL INSULATION







## **RAVATHERM CERAMIC FIBER**

Ravatherm Ceramic Fiber is an insulating material that is used for applications in between 750°C and 1430°C thermal insulation needed, which is consist of (spun technology) long, flexible and combined woven fibers. Ceramic fiber consists three elements basicly; silica, alumina and zirconium and it is a thermal insulation material for high temperature. Ravatherm Ceramic Fiber blanket is used in the industrial furnace insulation, boiler, pipe and chimney's insulation and it also used in all technical insulations, which requires high temperature.

Ravatherm Ceramic Fiber is produced on the Turkey's first high-tech ceramic fiber production line that has very low shot (unfiberized) content with the amount of high pure silica and aluminum. No chemical binders are used in the production of Ravatherm Ceramic Fiber thus during the first combustion it does not smoke and there is no odor during the combustion. It saves more energy rather than fire and insulation bricks due to having less heat in their structure.

Ravatherm Ceramic Fiber is not affected by chemicals (except phosphoric and hydrofluoric acid and strong alkalis such as  $Na_2O$ ,  $K_2O$ ). Its thermal and characteristic properties remain the same after being wetted and dried, and it still has the same thermal insulation properties. Ravatherm Ceramic Fiber which has long fiber structure thanks to its production technology, due to this feature, no chemical binder is needed for It is production.

Thanks to its ability to provide thermal insulation up to 1430°C in technical insulation, it provides energy saving in industrial use. It is capable of excellent sound and fire insulation as well as high temperature insulation.





# **RAVATHERM CF BLANKET**

Ravatherm Ceramic Fiber Blanket is a product which produced by the melting the zirconium, silica and alumina at high temperature and after formed fibers the product obtained by giving the form of a blanket at various thicknesses and densities with the pressure.

#### **Product Size**

25 x 610 x 7200mm, 50 x 610 x 3600mm, 14400 x 610 x 13mm

#### **Product Features:**

- High tensile strength and high elasticity
- Low thermal conductivity value
- High thermal resistance value
- Good sound absorption property
- ▶ Low temperature storage
- Minimal shrinkage at high temperature
- Not affected by thermal shock



#### **Typical Applications**

- Industrial furnace insulation
- Ceramics Glass industry
- Iron and steel industry
- Casting industry
- Cement industry
- Industrial furnace insulation
- Steel door Fire door
- Boiler, pipe, chimney, raw material storage tanks

### **RAVATHERM CF BLUK**

Ravatherm Bulk Ceramic Fiber is used as the basic raw material in the production of formable and vacuum shaped panels and molds.

#### Product Size

Served in 13-14 kilos packages



#### Product Features:

- Low dust content
- Homogeneous distribution
- Minimal shrinkage at high temperature

#### **Typical Applications**

- In industrial applications
- In filling gaps between device and walls
- In high boiler and furnace insulation where plate or blankets can not be applied
- On hot surfaces (mold pressed to form) as heat insulation filler material
- Production of materials for the foundry industry and raw materials in tandish refractories

# WATERPROOFING

Ravaproof membranes, manufactured at Ravago modern polymer bitumen membrane plant, offer ideal solutions for all types of buildings and details.



Strong and versatile torch-on plastomeric waterproofing membranes composed of distilled bitumen modified with select Atactic Polypropylene (APP) polymers.

Continuous non-woven SPUNBOND and/or reinforced polyester (P series) or strengthened glass fibre (G series) ensures excellent dimensional stability and mechanical properties.

Surface Finish with PE film, aluminium foil, silica sand or self protecting natural or colored slate chippings distributed uniformly and firmly anchored.

#### Features

- -5C cold bending performance with high percentage of polymer additives.
- ▶ High flow resistance performance up to +120°C.



Emerald

High performance torch-on waterproofing plastomeric multi-purpose membranes guaranteeing years of use at all climate types.

Distilled bitumen modified with select Atactic Polypropylene (APP) polymers and copolymer ensuring excellent durability and thermal stability.

Continuous non-woven SPUNBOND and/or reinforced polyester (P series) or strengthened glass fibre (G series) offering exceptional performance for application on wide surfaces subject to high mechanical stress.

Surface Finish with PE film, aluminium foil, silica sand or self protecting natural or colored slate chippings distributed uniformly and firmly anchored.

#### Features

- ▶ -10C to -15C cold bending performance.
- ▶ High flow resistance performance upto +120°C.

# WATERPROOFING





### Diamond

Outstanding performance torch-on waterproofing elastomeric SBS (Styrene Butadiene Styrene) modified membranes showing exceptional properties on any structure subject to cyclic movements or considerable temperature variations.

Distilled bitumen modified with high percentage of elastomeric polymers that ensure excellent properties of adherence, elasticity and extreme flexibility at low temperatures. Due to the chemical properties of thermo-plastic rubber, membrane should be protected against direct sunlight which triggers a process of early aging. Continuous non-woven SPUNBOND and/or reinforced polyester (P series) or strengthened glass fibre (G series) offering exceptional performance for application on wide surfaces subject to high mechanical stress.

Surface Finish with PE film, aluminium foil, silica sand or self protecting natural or colored slate chippings distributed uniformly and firmly anchored

#### Features

- ▶ Excellent cold bending performance from -5°C to -25°C.
- ► High flow resistance performance from 100°C upto +120°C flow.



#### Garden

Anti-root membranes designed for green roofs and terraces!

Compound: Distilled bitumen modified with a high content of elastomeric (Garden EP) and plastomeric (Garden +PP) compound.

The special chemical additive provides efficient and uniform chemical root-stop barrier throughout the entire thickness of the membrane, including the overlaps, where th antiroot barrier is formed by a single 3/4-mm thick layer.

#### **Reinforcement:**

The reinforcement of the membrane consists of a "non-woven" single strand, heavy weight, polyester fabric which is isotropic, root proof, thermally fixed, very strong and has a notable ultimate elongation combined with an optimal resistance to puncture and tearing. Areas of use: Garden series can be used in all waterproofing systems in contact with the ground or where there is the risk of the system being attacked by roots such as roof gardens and green walls.



Via

Ravaproof Via is designed to cover concrete decking of new highway bridges prior to the application of the surfacing material. Forming an impenetrable water barrier between the concrete decks and subsequently applied traffic bearing toppings or surfacing material.

Via membrane has high thermal resistance and cold flexibility performance for excellent adhesion to the concrete and harmonious penetration to the poured hot asphalt.

#### Compound:

Atactic Polypropylene (APP) and/or SBS (Styrene Butadiene Styrene) modified bitumen effectively prevents moisture, salts and deicing chemicals from infiltrating concrete surfaces, eliminates damage to steel reinforcing and eliminates concrete damage as a result of freeze-thaw cycles.

Reinforcement: The reinforced high strength non-woven polyester felt adds strength and aids in eliminating ruptures of the membrane during application and imparts sufficient strength to the membrane to permit driving rubber tired trucks, pavers and other vehicles.

# WATERPROOFING





Bitumex brand membranes are designed to be an excellent solution for any building type



Polymer bitumen sheets with APP (atactic polypropylene) additives.

#### **Properties**

- ▶ High performance plastomeric membrane
- High thermal resistance
- ▶ -10°C cold bending resistance, +120°C thermal resistance



Polymer bitumen sheets with APP (atactic polypropylene) additives.

#### **Properties**

- Plastomeric membrane
- High thermal resistance
- ▶ -10°C cold bending resistance, +120°C thermal resistance



Polymer bitumen sheets with SBS (styrene butadiene styrene) additives.

#### **Properties**

- Flexible elastomeric membrane
- High heat and cold resistance
- ▶ -20°C cold bending resistance, +100°C thermal resistance

# WATERPROOFING SINGLE LAYER SYSTEMS





### StoperProof H4.5MM

### FOUNDATION

Safer & Practical & New Preproof Membrane System designed for Single Layer Horizontal Waterproofing Applications at Below grade and Tanking works.

- ▶ Single Layer
- No need for Protection Concrete
- Loose Laid
- Easy to Apply at Below Grade and Tanking Works
- Save Time & Cost & Labor
- Lateral Water Migration Blockage
- High Water Pressure Resistance 6.9Bar

Ultra Flexible Elastomeric Bitumen membrane is composed of very special compound allowing excellent and continuous bond to poured concrete.

Heavy duty double reinforcement system has superior resistance to hydrostatic pressure, tears & punctures, penetrating elements and heavy storage materials. STOPERproof eliminates the need for use of protection concrete.



STOPERPROOF H 4,5MM APPLICATION SYSTEM



CONVENTIONAL BELOW TANKING SYSTEM



#### CHARACTERISTICS

**Compound:** High performance elastomeric membrane designed with a special formulation composed of distilled bitumen modified with high percentage of selected SBS polymers and specific thermoplastic polymers.

**Reinforcement:** Ultra strong double reinforcement system built with heavy duty continuous nonwoven polyester strengthened with a special fleece as second layer.

**Upper Surface Finish:** Special Fine Sand.

Lower Surface Finish: Thermoplastic PE film.

**Side Laps:** Peel&Stick with 10cm removable film.

#### BENEFITS

Special compound has excellent, continuous and homogenous adherence to the surface due to exothermic reaction feature of poured structural concrete during cooling .

Preventing air and water passages.

Any possible tiny leakage is blocked at the exact point and thus easy to fix by injection.

Ultra resistance to hydostatic pressure; tears and impacts.

Ultra resistance to puncture elements on site such as construction bars, labour traffic and storage of heavy materials.

Fine sand cooperating with special composition of the membrane creates a protection layer and allowing direct work on membrane system without need for a protection concrete.

With application of poured structural concrete, tiny particules of fine sand are drawn into melt compound and enable perfect bonding of membrane to the concrete.

Membrane is loose laid on compacted soil or concrete slab without use of torch.

Side Laps are joined to each other with sticky formulation. Torch can also be used on preference.

# WATERPROOFING SINGLE LAYER SYSTEMS





### StoperProof V3MM

Ravaproof StoperPoof V 3MM is desined for single layer waterproofing applications on single side vertical walls.

- Single layer
- Easy peel-apply system
- High tear and impact resistance
- Easy and fast application at once
- Save time, cost and labor
- Lateral water migration blackage, high water pressure resistance - 6,9 BAR

Ultra flexible elastomeric bitumen membrane is composed of very special compund allowing excellent and continuous bond to poured concrete.

With its composite polyester felt, it has high resistance against penetrating elements and impacts.

Ravaproof StoperProof V3MM ensures 100% lamination of membrane layer on single side vertical wall applications.





Single side wall vertical application

#### FEATURES

**Bitumen:** A high performance elastomeric membrane designed with a special formulation of bitumen modified with a high percentage of SBS and specific themoplastic polymers.

Felt: Composite polyester

Upper side: Fine sand

Lower side: Self-adhesive protected by a silicone release PP film

Overlap: 5 cm self adhesive + 5 cm PE film

#### ADVANTAGES

By the hydration heat generated during the curing of the freshly poured concrete its special formulation provides continuous, homogeneous and perfect adhesion to the curtain concrete.

It prevents air and water passages.

Any possible minor leak is blocked at the exact point so it is easy to fix by injection.

It shows high resistance against tearing, impacts and penetrating elements in the construction site.

When the concrete starts to cure, the fine sand surface softens slightly with the heat of hydration, allowing the membrane to fuse to concrete perfectly.

The siliconized PP film on the lower surface is easily peeled off and adhered to a surface prepared according to the construction site details.

When the concrete starts to cure, the fine sand surface softens slightly with the heat of hydration, allowing the membrane to fuse to concrete perfectly.





## **RAVASTICKY XL**

### CROSS LAMINATED SELF ADHESIVE BITUMINOUS WATERPROOFING MEMBRANE

Reliable, fast and practical self adhesive waterproofing membrane designed to be an alternative to conventional waterproofing applications.

- Easy Peal & Stick Design
- Single Layer
- Excellent Adhesion Performance- Proof for water migration
- High Impact, Puncture and UV Resistance
- Fast, Clean and Easy application at Once
- Save Time& Cost&Labor
- Extra Light Rolls

Excellent and continous adhesion to the application surface thanks to ultra flexible, self adhesive special formulation. Cross Lamineted HDPE Film on upper side ensures very high resistance to impact and tearing.



#### FEATURES

**Bitumen content:** Self adhesive waterproofing membrane modified with very high bitumen and SBS content together with the highest quality adhesive chemical additives.

Carrier: Nonwoven polyester or glassfiber

Upper Surface: Cross Laminated HDPE film.

Lower Surface: Removable siliconized PP Film

#### ADVANTAGES

Due to fast , easy and instant adhesion of s RAVASTICKY XL, remarkably shortens application time especially compared to coat applied insulation materials, need min 1 day to dry.

PP film is removed and self adhesive membrane applied on surface. As no need for torch use, it is time, labor and cost saving.

Ensures safe applications with extra light rolls.

Non woven polyester or glassfiber carrier optional according to need Cross laminated HDPE film, ensuring excellent tensile strength; tear , puncture and UV resistance.

Fully adhesion of membrane to the concrete ensures prevention of water migration throughout the concrete in case of any puncture or tear occurance on membrane during application.

Special XL film ensures high resistance to chlor, sulfat, alcali and acids. Resistant to UV radiation. Torch free application with easy peel siliconized PP Film at lower surface.





## MaxSTOPER

### CURTAIN FOUNDATION / TERRACE ROOF

RAVAPROOF MaxSTOPER is New Generation Single Layer Proof Bitumen Membrane System designed for roof &, terrace & curtain wall & foundation waterproofing.

Tens of years life span even at the extreme climate conditions with high temperature variations. Bitumen and very high SBS modified distilled bitumen membrane with no filler ensures equal and continous bitumen melting at each and every point ; results in %100 lamination of the compoud to the concrete surface and excellent adhesion at overlaps.

Heavy duty Non woven polyester ensures more than 40% membrane elongation and extremely high resistance to impacts.



#### FEATURES

- ▶ %1400 elongation at SBS modified compound
- Only SBS and Bitumen Content at Compound with No filler
- Extra light rolls (- %23)
- Cold Flexibility at (-25 °C)
- ▶ 5mm Thickness
- Upper surface finish Sand / Slate options

#### ADVANTAGES

- > Excellent elongation and longevity even at hardest climate conditions with very high temperature changes
- Blocking water at the point and Prevents water move throughout the concrete
- High Water Pressure Resistance
- Excelent Locking at Overlaps
- Crack Bridging on Concrete

Additional properties	Method	Unit	Tolerance	Value
Hydrostatic Resistance	ASTM D 5385	m (psi)	≥	69(100)
Lateral Water Migration	ASTM D 5385	m (psi)	≥	69(100)
Adhesion to the Concrete	EN 13596	Мра	≥	0,4
Sheer Resistance of Joints ≥ 1080N	UEAtc Moat 64	Ν	≥	1250
Peel Resistance of Joints ≥ 250N	UEAtc Moat 64	Ν	≥	250
Binding Mass (Lower Surface)	UEAtc	kg/m <sup>2</sup>	≥	2
Water Apsorption	EN 14233	%		1





# bondSTOPER

### ROOF-TERRACE-CURTAIN

New Generation Single Layer Proof Bitumen Membrane System designed for roof &, terrace & curtain wall & foundation waterproofing.

Thermoplastic Polyurethane (TPU) & SBS modification of distilled bitumen ensures equal and continous bitumen melting at each and every point ; results in %100 lamination of the compoud to the concrete surface and excellent adhesion at overlaps.

Ideal solution for Roof Renevations with its excellent adhesion directly to the old membrane layer with or without mineral finish.

Heavy duty Non woven polyester ensures more than 40% membrane elongation and extremely high resistance to impacts.



#### FEATURES

- SBS + TPU modified min -16C cold bending performance
- High performance high density polyester felt
- ▶ 4,4mm and 5mm thickness
- Upper surface finish Sand / Slate options

#### ADVANTAGES

- Blocking water at the point and Prevents water move throughout the concrete
- High Water Pressure Resistance
- Excelent Locking at Overlaps
- Crack Bridging on Concrete

Additional properties	Method	Unit	Tolerance	Value
Hydrostatic Resistance	ASTM D 5385	m (psi)	$\geq$	69(100)
Lateral Water Migration	ASTM D 5385	m (psi)	≥	69(100)
Adhesion to the Concrete	EN 13596	Мра	≥	0,4
Sheer Resistance of Joints ≥ 1080N	UEAtc Moat 64	Ν	≥	1080

# ROOF AND WATER INSULATION



It is used under the tile in hipped roofs, under the insulation material in steel roofs and above it according to the coating, and as a breathing waterproofing cover between the thermal insulation and the coating surface in curtain wall and siding applications.

As a result of DuPont research and development studies; Tyvek® Breathable Waterproofing Covers have been presented to the service of the building sector and its performance has been proven. The use of Tyvek® Breathable Waterproofing Cover eliminates the need for ventilation details in the eaves. Thanks to 100% HDPE material and thermally bonded dense mesh structure, the cold air in the external environment is prevented from entering the roof and heat loss transmitted by convection is prevented.

#### FEATURES

- ▶ High strength 100% HDPE (High Density Polyethylene)
- Thermally bonded microporous structure
- Permanent vapour permeable structure (Sd=0,02m.)
- High water insulation feature (1.5m.s.s.)
- ▶ High UV and heat resistance (-73°C/+100°C)
- Wind barrier
- Breathable waterproofing cover with A2 test report





Polyurea, whose primary application area is the terrace, differs from other products with its speed in curtain insulation



### **POLYUREA SYSTEMS**

Thanks to its fast-curing time, adhesion strength to the surface and impact resistance, polyurea is gaining more and more share in the waterproofing market every year. With Ravago's production knowledge and RBS Ravago Building Solution's insulation experience, it becomes a solution partner for projects with Evocoat 700 in pure product and Evocoat 450 in hybrid product.

Polyurea systems, which are unrivalled in terms of application speed and speed of use after application, can be applied to a wide range of products from wood to steel. With the right surface preparation, appropriate primer selection and a good application team, insulation can be provided for the life of the building.

# CURTAIN WALLING



Dowsil<sup>™</sup> insulating glass sealants are used in architectural insulating glass units of structural facades. Due to its UV resistance, silicone stands out as a secondary sealing material in such applications. New versions developed with Dowsil<sup>™</sup> technology also provide a solution for gas-filled high-performance insulating glass units.



In structural facade applications, silicone is used for bonding the glass to the aluminium frame.

Silicone is the only material that can fulfil this function thanks to its UV resistance, elasticity, adhesion strength, weather resistance and ability to perform for many years. With more than 50 years of technological leadership in silicone, Dowsil<sup>™</sup> creates creative, aesthetic and long-lasting facade systems.

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### FACADE & WEATHER SEALING

Silicone is the most accurate and unrivalled solution due to its long-lasting performance, flexibility and impermeability properties in the joint fillings of facade cladding materials such as aluminium, glass, stone and in the assembly of joinery elements such as doors and windows.

### WEATHER SEALING

Due to its superior properties such as long flexibility, service life and UV resistance, silicone has a wide range of uses in construction joints and joint details of different building elements.

### **GENERAL USE**

Silicone has a wide range of use in decoration, furniture, aquarium, glass, mirror assembly and clean room applications as a sealing element, joint sealant and adhesive.

Dowsil<sup>™</sup>, the leader in silicone technology, has a portfolio of silicone products with different superior properties for different purposes.

# DIFFERENT PRODUCTS ARE STRONG TOGETHER



We bring the world-renowned brands and professionals of the sector together.



### Silicone and Adhesives





DuPont<sup>™</sup> **Tyvek**®

Breathable Membranes



RAVATHERM

Stone Wool





# **Regional Directorates**



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