



دابر للخدمات الفنية شركة الشخص الواحد ذ.م.م

Daaber Technical Services Co. L.L.C

CIVIL CONTRACTOR SPECIALIST IN WATERPROOFING, SCREEDING ETC.

About Us

Daaber Technical Services Co L.L.C

Is registered Civil Contracting Company established in Dubai – UAE, Specialist in undertaking & Execute Residential, Commercial, 5-star Hotels, Resorts, Private Villas etc. Civil finishing Works as mentioned Below all over UAE

- All Types of Waterproofing
- Screeding
- Light Weight Foam Concrete
- Self Levelling & Masonry Works
- Project Management

Daaber Technical Services Co L.L.C is providing the best services in all disciplines within resourceful initiatives and novel aesthetics. We have been providing our clients with reliable solutions to their most complex construction challenges.

OUR VISION

To be a leading Civil Contracting Company while delivering projects that consistently exceed international standards and provide exceptional customer satisfaction. To continually deliver excellent value & innovative construction solutions to meet our clients' requirements & Building a Better tomorrow

OUR MISSION

Together, we develop, build and manage spaces that make a positive impact on our team, our clients and our communities



Our Services

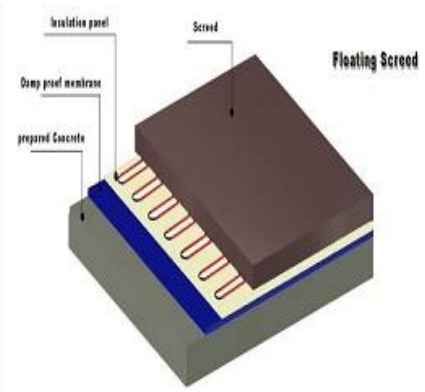
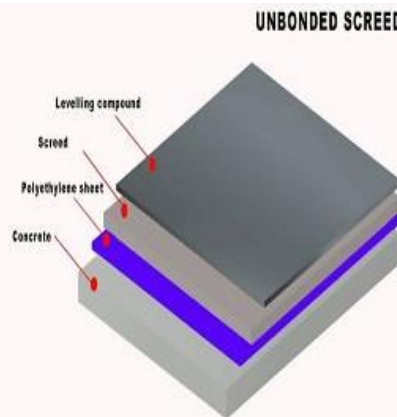
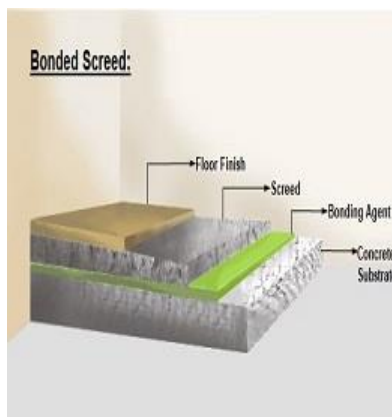
Screeding

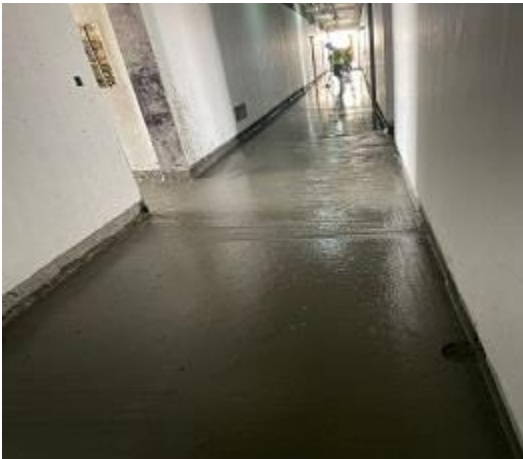
The screed's surface is generally smooth and flat, but it can be shaped in any formation to help you achieve the surface you need. Since no concrete pour is the same nor of the same size, different types of concrete screeds are needed. For achieving best results, it is best to have the right tool for the right job. There are Various types of Screed Options available such as stated



- **Bonded Screed** – This type of screed where the Screed layer is bonded fully to the substrate using a primer or bonding agent. This type of screed is ideal for thinner section screeds where heavy loading is expected. A bonded screed is generally of 15–30mm thick.

- **Un-Bonded Screed** – These types of Screed is applied to Polythene/ Damp Proof Membrane (DPM) laid on top of the concrete base, which separates it from the main slab. This type is ideal for thickness greater than 50mm for standard screed and 40mm for modified screeds.
- **Floating Screed** – This Type of screed layer is laid on top of insulation to create thermal insulated flooring
- **Hand Mixing** – This is Suitable only for very small areas and is not Recommended for bigger projects
- **Ready Mix Screed** – Ready Mix Concrete Screed is most Commonly Used & Consider Very Good Option Screed for Large areas & big Projects because of its advantage of casting Ready mix screed by using Pump







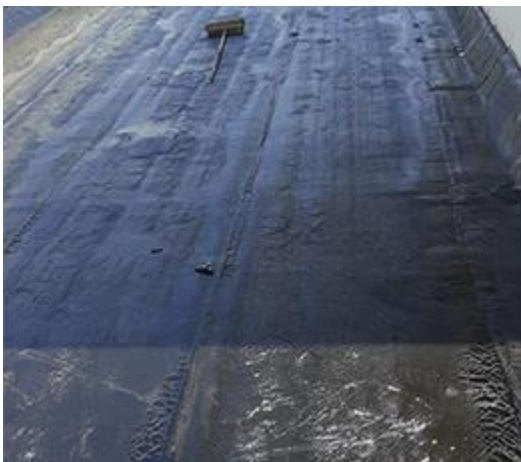
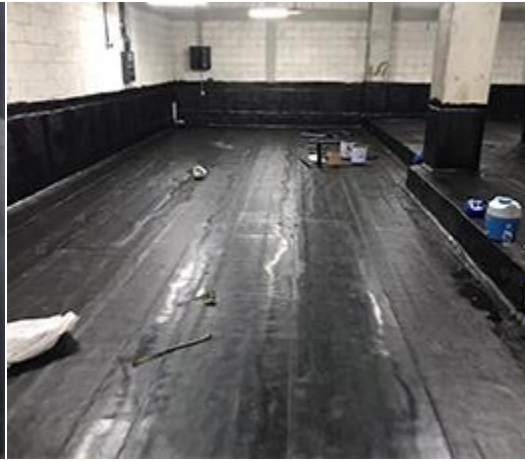
Waterproofing



Daaber Technical Services Co L.L.C is in the specialist field of Waterproofing, caters to the construction industry's need for waterproofing and Futureproofing. We provide watertight solutions for complex substructures, concrete roofs, metal roofs, wet areas, expansion joints and any structure where water ingress is a concern

Roof / Basement / Swimming Pool Podium / Terrace / Balcony
Waterproofing Services We offer

- **Membrane Waterproofing**
- **Cementitious Waterproofing**
- **Combo Roof System Waterproofing etc.**





Light Weight Foam Concrete



Cellular concrete or Light Weight Foam concrete is a type of porous concrete, Basically Foam concrete is a mixture of cement, water and foaming agent. When the foaming agent is diluted with water and air, further it is mixed into the cement slurry.

Generally, the main advantage of Light weight Foam Concrete is it can be placed easily by pumping if necessary and does not require any compaction, vibration or leveling. It can be called as highly workable concrete. It has excellent resistance against water and frost action.

The mixing and casting of the lightweight screed is done with an automated machine mainly composed of mixer, aerator, pump, water reservoir, electric panel board and related accessories.





Self-Leveling & Masonry Work



Self-leveling Concrete is a Polymer Modified Cement used to create high compressive smooth Flat surface & the main advantage of Self levelling is, it is faster & Easier than Pouring new Concrete. Self-leveling thickness is usually considered from 3mm to 10mm as per client Work Requirement



Project Management



- **Projects Execution & Team Management**
- **Techno Commercial operations**
- **Cost Control**
- **Quality Assurance & Control**

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PRODUCT DATA SHEET

TECHNICAL DATA SHEET 101802009ME001

SUPERSEDES: TECHNICAL DATA SHEET SLNEFLM05_190507SMEIE001
 TECHNICAL DATA SHEET SLNEFLM10_190507SMEIE001
 TECHNICAL DATA SHEET SLNEFLM20_190507SMEIE001

DESCRIPTION

SOPRALENE® FLAM 180 is a series of flexible reinforced SBS-modified bitumen sheet membranes for use in approved single or multi-ply and flashing assemblies. It is composed of a proprietary formulation of elastomeric styrene-butadiene-styrene (SBS) polymer modified bitumen and is reinforced with a tough, dimensionally stable non-woven polyester mat. The topside is surfaced with thermofusible film or slate flakes and underside are surfaced with thermofusible film.

STORAGE & HANDLING

Rolls must be stored in upright position, with selvedge side on top to prevent damage. Store rolls in a clean dry location and cover as necessary to protect from any environmental impact such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of SOPRALENE® FLAM 180.

USER APPLICATION

SOPRALENE® FLAM 180 can be used in single ply or 2-ply, vertically and horizontally in substructure and superstructure applications. All the application guidelines are described in SOPREMA® Technical Manuals in force.

INSTALLATION		ACCESSORIES	SOPRADERE HT - SOLVENT BASED PRIMER
			AQUADERE HT - WATER BASED PRIMER
			SOPRABOARD SF - PROTECTION BOARD
			SOPRAMASTIC LM - BITUMINOUS MASTIC
HEAT WELDED			

ADVANTAGES	<ul style="list-style-type: none"> ■ Versatility: Designed to fit perfectly to the different user applications ■ Reliability: Proprietary blend offering high resistance to weathering ■ Durability: Superior waterproofing protection after aging ■ Reflectivity: Reduction of heat absorption by the system ■ Sustainability: Contribution to LEED ■ Warranty: Comprehensive warranty option programs ■ Recyclability: Product composition can be recycled
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SHELF LIFE

Material will have a 12 months shelf life if stored in a dry and properly ventilated area, sheltered from the elements or any harmful substances. Material shall be adequately protected from environmental impacts to the properties or the performance of the membrane.

HEALTH, SAFETY & ENVIRONMENT

The product does not contain any substance likely to be detrimental to health or to the environment and complies with generally admitted Health & Safety Requirements. For further information please refer to relevant Material Safety Data Sheet (MSDS).

TRACEABILITY

Product traceability is ensured through a manufacturing identification present on the packaging.

QUALITY MANAGEMENT

SOPREMA always recognises as a high level of importance the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality Management Systems in line with ISO 9001:2015.



COMPOSITION & PACKAGING

SOPRALENE FLAM 180					
PROPERTY	3P20	4P20	4F20	5P20	5F20
Cold flexibility	- 20 °C				
PROPERTY	3P10	4P10	4F10	5P10	5F10
Cold flexibility	- 10 °C				
PROPERTY	3P5	4P5	4F5	5P5	5F5
Cold flexibility	-5 °C				
Reinforcement	180 g / m ²				
Thickness	3.0 mm	4.0 mm		5.0 mm	
Roll dimension	1 x 10 m				
Roll weight	40 kg	50 kg		63 kg	
Rolls per pallet	28 Rolls	23 Rolls		16 Rolls	
Top face	Film	Film	Slate	Film	Slate
Underface	Thermofusible film				

CONFORMITY	UEAtc MOAT: 31 - 1984 TESTED IN ACCORDANCE WITH ASTM D5147
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TECHNICAL PROPERTIES

PROPERTY	STANDARDS	SOPRALENE FLAM 180
Softening point (Bitumen mass)	ASTM D 36	> 130 °C
Penetration @ 25 °C (Bitumen mass)	ASTM D 5	25 - 35 dmm
Tensile strength, MD / CMD	EN 12311 - 1	900 / 700 N / 5 cm
Elongation, MD / CMD	EN 12311 - 1	45 / 50 %
Tensile strength, MD / CMD	ASTM D 5147	15 / 11 KN / m
Elongation, MD / CMD	ASTM D 5147	55 / 55 %
Flow resistance at elevated temp.	EN 1110	105 °C
Dimensional stability	EN 1107	≤ 0.5 %
Resistance to static puncture	EN 12730	L ₄ (25 kg) *
Resistance to dynamic puncture	UEAtc	I ₄ **
Compound stability @ 120 °C	ASTM D 5147	No failure
Tear strength, MD / CMD	ASTM D 5147	550 / 400 N
Resistance to tearing, MD / CMD	EN 12310 - 1	200 / 200 N
Puncture resistance	ASTM E 154	850 N
Shear resistance of joints	EN 12317 - 1	≥ 600 N / 5 cm
Fatigue resistance, 500 cycles @ 0 °C	UEAtc MOAT 27, 30, 31	Pass
Creeping resistance @ 70 °C on a substrate inclined at 45° for 192 hrs.	UEAtc MOAT 27, 30, 31	No flow
Ageing under UV for 2008 hrs	UEAtc MOAT 27, 30, 31	No deterioration
Durability, Watertightness	EN 13969 : 2004	Conform
Water resistance for 28 days	UEAtc MOAT 27, 30, 31	Reinforcement does not separate from coating
Water tightness @ 24 hrs.	EN 1928 : 2000	> 60 kpa
Water absorption @ 24 hrs.	ASTM D 570	< 0.5 %
Resistance to impact	EN 12691	> 1000 mm
Chemical resistance	UEAtc MOAT 27, 30, 31	Resistant
Resistance to hydrostatic pressure	ASTM D5385	> 70 m

Note: All products manufactured by SOPREMA comply with the description and properties indicated in the technical data sheet that was current at the date of manufacture.

Data is represented by average values, unless noted otherwise.

All values are nominal, tolerance ± 20 %

* L₃ for -5 & -10 °C cold flexibilities

** I₃ for -5 & -10 °C cold flexibilities

TESTING AND CERTIFICATIONS



SUSTAINABILITY AND ENVIRONMENT



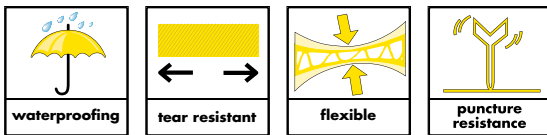
Bituplus E

SBS modified bituminous waterproofing membrane

Bituminous waterproofing membrane, modified with SBS polymers for excellent waterproofing and low temperature flexibility properties.

CHARACTERISTICS

- ▶ Excellent resistance to positive water & vapor pressure
- ▶ Good dimensional stability under tension
- ▶ Excellent flexibility. Can accommodate high structural movements
- ▶ High puncture and fatigue resistance
- ▶ Excellent tensile and tear strengths
- ▶ High resistance against water borne chemicals
- ▶ Exhibits good low temperature flexibility with no physical strain



DESCRIPTION

Bituplus E is a bituminous waterproofing membrane manufactured by blending a mixture of bitumen and SBS (Styrene Butadiene Styrene) polymers to obtain excellent waterproofing and low temperature flexibility properties. The polymerized bitumen is coated onto a dimensionally stable reinforcement core of non woven spun bond polyester rot-proof fabric.

FIELDS OF APPLICATION

Bituplus E membrane is typically used for waterproofing / damp proofing of the following areas:

- concrete foundations & footings
- basements
- pile heads
- swimming pools & water retaining structures (externally)
- tunnels
- wet areas (kitchens & bathrooms)

APPLICATION INSTRUCTIONS

The application temperature should be between 5°C to 55°C. Application procedures may vary slightly depending upon site conditions.

Surface preparation

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections, protrusions, structurally unsound and friable concrete must be removed and repaired.



TDS_Bituplus E_GCC_0519

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Priming

Apply Polyprime SB* (Solvent based primer) @4-6 m²/L to a clean, smooth and dry surface by brush, roller or spray. Allow the primer to dry prior to the application of the membrane. The primer promotes the adhesion between the membrane and the concrete surface.

Alignment

Start the installation of all membrane plies from the low point or drains, so that the flow of water is over or parallel to the plies, but never against the laps. All overlaps at the membrane seams shall be installed so as to have "up" slope laps over "down" slope laps. Begin membrane application by unrolling the roll of Bituplus E membrane and aligning the side laps. Side overlaps should be a minimum of 100 mm and the end overlaps 150mm.

Torching

Bituplus E membrane is installed by using a cylinder fed propane gas torch. Use of hand-held roofing torch is recommended as it affords a good control. Begin torching the embossed polyethylene side of the rolled portion of the membrane. As the membrane is heated the embossing starts to melt away exposing a shiny bitumen surface. Roll forward the membrane and press firmly with the boot or roller against the substrate to bond well. The propane

flame should be moved from side to side and up the lap edge while the membrane is slowly unrolled and adhered to the underlying surface. Caution: Do not over torch the membrane as this will expose the reinforcement and cause damage to it.

Sealing

Heat both the overlaps and use round tipped trowel to seal the overlap. Adequate heat is confirmed when a uniform flow of melted bitumen compound flows evenly in a bead that oozes from the applied membrane's edges. Excess compound should be pressed into the seam using a heated trowel. Any un-bonded areas must be lifted and re-torched.

Protection

Bituplus E should be protected from getting damaged due to the ongoing site activities and during backfilling. Membranes laid on horizontal surfaces can be protected either by a cement sand screed (50mm thick) or by an asphaltic protection board (Bituboard)*. On vertical surfaces the membrane has to be protected with Bituboard. Bituboard can be fixed on the membrane by torching the underside of the board, or with a double sided bitumen adhesive tape (Watertite TS 15)*. Please contact our technical service team for specific requirement.

STANDARDS

Bituplus E membranes are tested and conform to the requirements of ASTM and UEAtc 2001 standards.

STORAGE & SHELF LIFE

Bituplus E membrane rolls whether loose or on pallets have to be stored vertically in a shaded area, neatly covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight & UV. The membranes shall be protected from all sources of heat and extreme temperatures. The shelf life is 12 months if stored as per recommendations. Excessive exposure to sunlight, UV and other sources of heat will result in considerable deterioration of the product and reduce its shelf life.

HEALTH & SAFETY

Bituplus E contains a tacky bitumen compound which can stick to human skin during application. Such stains can be removed by using a cloth dipped in a suitable cleaner.

SUPPLY

Bituplus E	1m x 10m, wt 41kg#
Polyprime SB	20L pail & 200L drum
Bituboard	3.2mm 2m x 1m, wt 7.7kg# 6.0mm 2m x 1m, wt 14.0kg#
Watertite TS 15	10m x 50mm, wt 0.60kg

Approximate weight

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS	
Product	4180	4200	
Thickness, [mm]	4.0	4.0	DIN EN 1849-1
Mass per unit area, [kg/m ²]	4.0-4.3	4.0-4.3	DIN EN 1849-1
Reinforcement [polyester], [g/m ²]	180	200	EN 29073-1
Coating asphalt	Styrene Butadiene Styrene Polymer Modified Asphalt		
Softening point [R&B], [°C]	> 110		ASTM D 36
Penetration @25°C, [0.1mm]	20-35		ASTM D 5
Tensile strength [L/T], [N/5cm]	800/600	850/650	DIN EN 12311-1
Elongation at break [L/T], [%]	40/50	40/50	DIN EN 12311-1
Tear resistance [L/T], [N]	160/180 >400/300	180/200 >500/400	DIN EN 12310-1 ASTM D 5147 / D 4073
Resistance to static loading	Static : L ₂₅		DIN EN 12730
Hydrostatic pressure @ 5 bar [50m]	No leakage		BS EN 12390 (Part 8)
Water absorption [BSP], [%]	<0.2		ASTM D 5147
Heat resistance @100°C	No flow		DIN EN 52 123
Low temperature flexibility	-3°C to -10°C		ASTM D 5147
Dimensional stability, [%]	<1		ASTM D 6164
VOC [g/L]	<50		ASTM D3960 / D2369

All values given are subject to 5-20% tolerance

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

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

GENERAL DESCRIPTION

BETAGUM is the standard roofing and waterproofing membrane, reinforced either with a core of non woven polyester of 200g/m² nominal weight (referred to as P) or a 50g/m² fiberglass fleece (referred to as F). It is the recommended roofing membrane, but can be useful for another variety of applications among them; Large slabs, terraces, bathrooms, wet areas, foundations, basements, tanking and others.

SPECIAL FEATURES

- Positive barrier to water and damp ness.
- Excellent resistance to ageing and atmospheric agents.
- Remains flexible even in cool weather.
- Maintains shape stability at high temperatures.
- Accommodates structural movements.
- May be torched directly over old shingles or old bituminous membranes.
- The membrane comes in various types according to the surface top:
 - SAND: The top surface is covered with fine sand.
 - PBS: The top surface is covered with a thin easy torched Poly-ethylene film.
 - SL: The top surface is covered with reflective slates either in natural gray or pigmented in various colors.
 - The bottom surface is covered with a thin easy torched Poly-Ethylene film.
- Resistant to water-borne chemical attack.

COATING MIXTURE OF THE MEMBRANE

The waterproofing capability is provided by the coating mix of the BETAGUM membrane.

The reinforcement is impregnated with this mix and then coated to factory regulated thickness from 2mm to 5mm depending on reinforcement and client requirement. The mix is made up of bitumen, modified with Amorphous Poly-olefins, thermoplastic resins and stabilizers giving the membrane its excellent resistance to atmospheric agents and ageing, maintaining shape stability at high temperatures, improving adhesion strength and making the membrane easy to apply saving on time and labor.

PACKING

BETAGUM is manufactured in a standard size of 1x10 m for thickness of 3mm, 4mm and 5mm and 1 x20 m for 2mm, however special length can be done on request. All rolls are sold in pallets and covered with a shrink-wrap.

TOOLS & EQUIPMENT

The application of the BETAGUM membrane requires very limited tools like propane gas torches and cylinder a knife for cutting the membranes to size and a trowel with rounded end.

METHOD OF APPLICATION

The application of the BETAGUM membrane requires very limited tools like propane gas torches and cylinder a knife for cutting the membranes to size and a trowel with rounded end. Various torch heads are sold separately by DWI on request. is both easy and quick. For applications on concrete, tiles or any other porous surface, coat the substrate with ADVAPRIME (solvent based bituminous primer according to ASTM D41) at the rate of 4 - 5 m² /litre. Allow this coating to dry thoroughly. In time of high humidity we recommend it should be left overnight. The application of the BETAGUM membrane requires very limited tools like propane gas torches and cylinder a knife for cutting the membranes to size and a trowel with rounded end. Various torch heads are sold separately by DWI on request. T should fires(' be unrolled and positioned correctly. Each roll should overlap the adjacent roll by 10cm. Once the roll has been positioned correctly, the membrane should be rolled up again, taking care not to change its orientation. Using left to right movements, heat the lower surface of the membrane with a propane gas torch. This will cause slight surface melting and the molten bitumen will adhere to the surface. You then torch on the side overlap to the recommended size of 100mm. Continue the above method of consecutive rolls remembering end-laps must be minimum 100mm. The slated membranes will come with a factory installed 100mm side selvedge. Inspection of lap joints must be carried out to ensure total adhesion.

TECHNICAL DATA

BETAGUM products are tested at random intervals by independent laboratories to international standards and the results of these tests are available on request. In addition, each batch manufactured is subject to strict quality control procedures to ensure it meets appropriate and applicable standards and/or norms.

	PROCEDURE	UNITS	TOLERANCE	VALUE
ASTM				
Length		m	< -1%	10
Width		m	< -1%	1
Thickness	ASTM D5147	mm	-0.2mm	4.00
Tensile properties: max. tensile force - long	ASTM D5147	N/5mm	-20%	850
- trans	ASTM D5147	N/5mm	-20%	700
Tensile properties: elongation - long	ASTM D5147	%	-15	45
- trans	ASTM D5147	%	-15	50
Resistance to tearing - long	ASTM D5147	N	min	550
- trans	ASTM D5147	N	min	375
Lap joint strength - long	ASTM D5147	N/5mm	-20%	750
- trans	ASTM D5147	N/5mm	-20%	550
Low temperature flexibility*		C	min	0
Dimensional stability at +80C - long	ASTM D5147	%	mlv	-0.5
- trans	ASTM D5147	%	mlv	-0.5
Water Absorption	ASTM D5147	%	mlv	< 0.15
CE				
Visible cefects	EN 1850-1	N°/m ²	0	0
Length	EN 1848-1	m	< -1%	10
Width	EN 1848-1	m	< -1%	1
Straightness	EN 1848-1	mm	< 20mm	pass
Mass per unit area	EN 1849-1	kg/m ²	+/- 10%	4.70
Thickness	EN 1849-1	mm	-0.2mm	4.00
Watertightness to liquid Water	EN 1828-1	mlv	>60 kPa	pass
Tensile properties: max. tensile force - long	EN 12311-1	N/5cm	-20%	850
- trans	EN 12311-1	N/5cm	-20%	700
Tensile properties: elongation - long	EN 12311-1	%	-15	-15
- trans	EN 12311-1	%	-15	-15
Resistance to tearing (nail shank) - long	UNI 8202/9	N	min	175
- trans	UNI 8202/9	N	min	190
Shear resistance of joint - long	EN 12317-1	N/5cm	-20%	750
- trans	EN 12317-1	N/5cm	-20%	550
Resistance to static loading (method A)	EN 12730	kg	min	20
Resistance to impact	EN 12691	mm	mlv	>700
Flexibility at low temperature*	EN 1109	C	min	0
Dimensional stability - long	EN 1107-1	%	max	-0.5
Flow Resistance less than 2mm	EN 1110	C	mlv	100
Reaction to fire	EN 13501-1		Euroclass	F



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Manufactured in: Saudi Arabia by



MasterSeal[®] 550

Acrylic reinforced cementitious, flexible waterproof coating

DESCRIPTION

MasterSeal 550 is a two-component acrylic modified cementitious coating that requires only on site mixing to form the ideal product to waterproof and resurface concrete, masonry, and most other construction materials.

Simply applied by stiff brush, roller, or trowel, it forms a waterproof, flexible coating.

MasterSeal 550 provides an effective barrier to waterborne salts and atmospheric gases.

Fluid applied, **MasterSeal 550** provides a hard wearing, seamless, waterproof membrane for roofs and foundation protection.

MasterSeal 550 is composed of specially selected cements, silica sand and reactive fillers supplied in powder form together with a liquid component of blended acrylic copolymers and wetting agents.

TYPICAL APPLICATIONS

- To reface and even out variations in concrete surfaces.
- As a waterproof lining for water retaining structures.
- For coating seawater channels.
- Sealing and coating tie bar holes to ensure watertightness.
- For waterproofing and protection against brackish water.
- To provide foundation protection.
- As a waterproof coating for roofs.
- As a backing to marble and granite to prevent water ingress and thus alleviate surface staining.
- To provide protection to concrete surfaces from carbonation and chloride attack.
- For use on pedestrian walkways in marine areas.
- For waterproofing of wet areas under tiling.
- As a waterproof and protection coating on top of spray polyurethane foam roof insulation.

ADVANTAGES

- Waterproof
- Excellent adhesion. Bonds to porous and non-porous surfaces
- Flexible
- Suitable for light pedestrian traffic
- Breathable - whilst repelling water, allows substrate to breathe
- High resistance to chloride ion diffusion
- Unlike conventional coatings which require a 7-28 day cure of concrete, **MasterSeal 550** can be applied to 24 hour-old concrete thereby giving immediate protection
- White color has high solar reflectivity index (SRI >78) to prevent heat island effect on roofs

PACKAGING AND COLORS

MasterSeal 550 is available in 20 kg double pack.

MasterSeal 550 is available in three standard colours: J-Light Grey, K-White and H-Dark Grey.

STANDARDS

BS 6920: Part 1 2000 - Suitable for use in contact with potable water.

TYPICAL PROPERTIES*

Density	1826 kg/m ³
Chloride ion diffusivity	Not measurable after 24 months of testing
Depth of water penetration under pressure BS EN 12390 Part 8: 2009	Nil
Liquid water permeability BS EN 1062-3: 2008	<0.1 kg (m ² xh ^{0.5})
Carbon dioxide permeability BS EN 1062-6: 2002 Method A Equivalent air layer thickness (SD)	>50 m

APPLICATION GUIDELINES

SURFACE PREPARATION

As with all coating systems, surface preparation is of prime importance. Remove all grease, oil, dust, residual curing compound, mould release agent, laitance or other contaminant that could impair adhesion. Suitable cleaning methods include ultra-high-pressure water jetting grit blasting and grinding. Spalled concrete should be cut back to

MasterSeal[®] 550

sound concrete and made good with a suitable cementitious repair mortar such as **MasterEmaco S 488**. Conventional concrete curing compounds should be removed before application. The exception to this is when **MasterKure 181** has been used.

Chloride Ion diffusivity

MasterSeal 550 provides an effective barrier to waterborne salts such as chlorides and sulphates. *Independent assessment has shown that even after 12 months constant immersion the chloride ion diffusion co-efficient could not be measured for **MasterSeal 550**.

Chemical resistance

MasterSeal 550 has outstanding wear and weather resistance and good resistance to sodium hydroxide, calcium chloride, de-icing salts. **MasterSeal 550** coated surfaces exhibit good resistance to mild acids.

Anti carbonation coating

MasterSeal 550 is an extremely effective barrier to atmospheric acidic gases which cause carbonation in concrete structures. **MasterSeal 550** at an applied rate of 1.8 kg/m² gives an equivalent air layer thickness for carbon dioxide diffusion (R) of 92 m. The accepted minimum value for R is 50 m. Testing to confirm this was carried out independently by Taywood Engineering 2005. A report is available on request.

MIXING

MasterSeal 550 is supplied in premeasured units and should be mixed on site utilising clean containers. Slowly add the powder to the liquid and mix, using a slow speed drill fitted with a suitable paddle. MIX AND USE. Do not mix more material than can be used in one hour.

NOTE: Although **MasterSeal 550** is supplied in premeasured packs, part packs can be used by mixing 2 volumes of powder to 1 volume of liquid. Mix thoroughly and keep mixed during application. DO NOT RE-TEMPER WITH WATER.

PLACING / APPLICATION

Do not apply to dry concrete

Saturate concrete surfaces with clean water whilst still visibly damp, but free of standing water, apply, using a short, stiff bristle brush or roller. Trowel application can be undertaken as necessary. For heavy 6-10 mm depressions, honeycombs etc. use less gauging liquid and mix to the desired consistency. Where more than one coat is found necessary to achieve the desired thickness, apply the second or subsequent coats after the previous coat has dried.

It is recommended, for general resurfacing, that each coat should be a minimum of 1 mm thick. Spray application is recommended for large areas, details of suitable equipment can be provided by Master Builders Solutions Technical Service Department.

Notes

Where subsequent tiling works are to be carried out on vertical surfaces, contact the local Master Builders Solutions representative for advice.

COVERAGE / YIELD

1.8 kg / m² at 1 mm thickness.

STORAGE AND SHELF LIFE

Part A (powder): Shelf life is 12 months from date of manufacturing in unopened original bags. Product must be kept out of direct sunlight, in a dry, cool place, stored clear of the ground on pallets. Avoid excessive compaction.

Part B (liquid): Shelf life is 12 months from date of manufacturing in unopened original containers. Product must be kept out of direct sunlight and in a dry, cool, preferably air-conditioned warehouse below 35°C temperature. Store clear of the ground on pallets. Do not stack pallets.

MasterSeal[®] 550

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC Group in many countries.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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