CHEMBOND

HIGH PERFORMANCE LATEX MODIFIER FOR CEMENT

DESCRIPTION

CHEMBOND is an aqueous dispersion of superior quality styrene-butadiene copolymer, specifically designed for use as a bonding agent or additive for cement mixes, mortars and concrete. Is principally used in cementitious material to improve the workability of the fresh paste and also to increase the mechanical properties and the adhesion of the hardened material.

USES

CHEMBOND is widely applicable for use in repair/general purpose mortars and overlay applications.
Also, it is likely to be applicable to floors, bridge deck, surfacing and compounds for repairs, road and concrete structures.

- Repair of concrete and masonry surfaces.
- Re-surfacing or leveling of concrete waterproofing products.
- Ceramic tile, brick or slate adhesives.
- Precast panel patching.
- Permanent bonding or cementitious coatings, textures and plaster.
- Sealer for concrete and asbestos cement sheet.
- Waterproofing render coat.

ADVANTAGES

- Economical and easy to use.
- Great adhesion to porous or non-porous substrates.
- Single pack new generation emulsion.
- Resists acids, alkalis, fats and oils.
- Improves tensile, flexural, impact and compressive strength.
- Reduced water permeability.

TYPE
WATER PROOFING

ADVANTAGES
PERMEABILITY REDUCTION
CHEMICAL RESISTANT
HIGH ADHESION

COVERAGE (PER COAT)
REFER TO DESIGN MIX

COMPONENT
1
PART

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TECHNICAL PROPERTIES

CHEMBOND/CEMENT RATIO WT/WT	NO CHEMBOND	CHEMBOND @25% CEMENT
Flash Point (ASTM D-92)	N/A	Not observed at 90 °C
Pull-off Strength (ASTM D 4541-17)	N/A	No cohesive and adhesive failure
Pull-off Adhesive (ASTM D 7234-12) N/mm^2	0	> 0.7 N/mm^2
Tensile strength (ASTM D412) N/mm^2	2.0	4.0
Compressive strength (BS 6319:Part 2:1983) N/mm^2	46.0	50.0
Flexural strength (BS 6319:Part 3:1990) N/mm^2	7.1	13.2
Water vapor permeability (ASTM E 96) (g/m^2/24hrs).	46.9	4.0

TYPICAL PROPERTIES:

- Ceramic tile, brick or slate adhesives.
- Waterproof grouts and cement based adhesives.
- Storage tank, silos, reservoirs and towers.
- Precast panel patching.
- Permanent bonding or cementitious coatings, textures and plaster.
- Sealer for concrete and asbestos cement sheet.
- Waterproofing render coat.
- Compatible with concrete for spalling repairs.
- Non-toxic and non-flammable.
- Excellent exterior durability.
- Multi-purpose application.
- Thin or thick builds on a wide variety of substrates.

PHYSICAL PROPERTIES

Appearance	Opaque, milky white liquid
Solid Content	~37%
Viscosity	Max. 200 cps
Particle Size	140 – 180 nm
pH	8 – 11
Tg	5ºC

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INSTRUCTIONS FOR USE

PREPARATION

All substrates must be clean and free from dust and loose material. Old paint should be removed, as should oil, grease, wax, curing compounds, laitances etc.

Reinforcing steel in the repair areas should be thoroughly cleaned to remove all loose scale and corrosion deposits. When repairing spalled or damaged concrete, ensure that the concrete has been cut back to thoroughly sound material.

Always lay to a minimum 10 mm deep saw cut edge, depending upon application.

SPATTERDASH

CHEMBOND can be applied as spatterdash to increase the bond of mortars and renders on smooth substrate.

Recommended mix of spatterdash using a blend of 1 volume of **CHEMBOND** to 1 volume of clean water as the gauging liquid is:

Gauging Liquid : 0.5-0.7 Part
OPC : 1 Part
Sand : 2 Parts

Gauging liquid ratio to cement should be reasonably adjusted to handy application within the above specified range according to sand humidity and atmospheric temperature.

BONDING SLURRY

The substrate should be fully soaked with fresh clean water with any excess removed when a slurry is applied.

Prepare bonding slurry of approximately 1.5 volumes of OPC to 1 volume of **CHEMBOND** mixed to a lump-free creamy consistency. These proportions can be adjusted to obtain a suitable mix consistency for any particular applications.

Using a stiff brush, work the bonding slurry well into the damp surface ensuring that no pinholes are visible. Avoid applying too thickly and avoid ponding on horizontal surface.

The repair mortar, topping or render must be applied while the bonding slurry is still wet, tacky, generally within 15 minutes. The slurry must be removed and the area re-primed if the slurry dries before application of the cementitious mixes.

DESIGN MIX

CHEMBOND modified mortars should be thoroughly mixed preferably using a slow speed mechanical pan-type mixer or a heavy-duty drill coupled with a recommended spiral paddle. Recommended mix for some typical applications are as below:

REPAIR MORTAR	
Recommended Thickness	6 mm – 35 mm
OPC	50 kg
Sand	125 kg
CHEMBOND	10 Litres
Clean Fresh Water	8 – 10 Litres
Yield	Approximately 100 Litres

RENDER	
Recommended Thickness	6 mm – 10 mm
OPC	50 kg
Sand	125 kg
CHEMBOND	10 Litres
Clean Fresh Water	6 Litres
Yield	Approximately 100 Litres

TILE ADHESIVES	
OPC	50 kg
Sand	125 kg
CHEMBOND	15 Litres
Clean Fresh Water	3 Litres

HEAVY DUTY FLOOR SCREEDS & TOPPINGS	
Recommended Thickness	10 mm – 30 mm
OPC	50 kg
Sand	75 kg
Aggregates	75 kg
CHEMBOND	10 Litres
Clean Fresh Water	5 - 7 Litres
Yield	Approximately 100 Litres

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DESIGN MIX
Please note that the quantity of water suggested for these mixes is only an estimation. The actual demand will depend on the required consistency and the moisture content of the sand and aggregate used.

PACKAGING
20 Liter pails or 200 Liter Drums

STORAGE
CHEMBOND should not be subjected to high or low temperature excesses. Store in protected areas. **CHEMBOND** has a shelf-life of 12 months when stored in unopened original containers. Freezing or prolonged exposure to direct heat or direct sunlight must also be avoided. Storage outside these guidelines may impair the shelf-life.

SCOPE OF REGISTRATION AND STANDARDS
Manufacture of Waterproofing materials. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard. SIRIM certification is available for selected products upon request, subject to applicable testing and certification requirements.

Made In Malaysia

CHEMIND

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SIRIM

ASTM INTERNATIONAL Standards Worldwide

CHEMIND AUSTRALIAN TECHNOLOGY

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