

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	5°C

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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.

Legal Notes:
'Statements made in this bulletin are for the assistance of our customers. They are based on our experience and judgment but must not be regarded as amounting to a legal warranty or as involving any liability on our part. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of this product must test the product's suitability for the intended application and purpose. CHEMIND reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. Users may always refer to the most recent issue of our Product Data Sheet for the products concerned, copies of which will be supplied upon request.'

Made In Malaysia

SCOPE OF REGISTRATION AND STANDARDS

Manufacture of Waterproofing materials. Compliance SIRIM testing. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard.



MANUFACTURER
CHEMIND INDUSTRIES SDN. BHD. (468913-T)
NO. 8, JALAN MERANTI JAYA 16, TAMAN PERINDUSTRIAN MERANTI JAYA,
47100 PUCHONG, SELANGOR DARUL EHSAN, MALAYSIA.
TEL: 603-8066 4128 FAX: 603-8051 3128

