

mart-KEYBOND LATEX

SBR LATEX KEYING AND BONDING AGENT
FOR PLASTERS AND CEMENTITIOUS PRODUCTS

DESCRIPTION

mart-Keybond Latex, multi applications ready to use blend of latex (SBR – styrene butadiene rubber) emulsions and special chemical modifiers. **mart-Keybond Latex** robust product that is economical and has been specially modified to be compatible with ordinary Portland cement-based mixes, screeds, ready to use repair mortars, grouts and underlayment's. Used as an admixture in lieu with water will significantly improve the bond strength and flexibility of mortar systems. In addition, it will increase a mortar's internal adhesion, frost resistance, flexural strength and inhibits the penetration of water or other liquids.

CHARACTERISTICS/ADVANTAGES

- **Corrosion control:** Prevents corrosion of embedded steel

When applied as Bonding/Keying Agent:

- Easy to use single component.
- Improves bond of new concrete to old concrete (non-structural) plaster, stone/brick masonry.
- Increase bond strength to hardened concrete.

When mixed in to cementitious products as a partial water replacement:

- Lower water cement ratio.
- Reduces cracking through increased mortar flexural strength.
- Water-resistant rendering for interior or exterior walls or basements.
- Increases mortar tensile strength
- Good water resistance.
- Good resistance to many chemicals and oils.
- Reduces permeability.
- Improves flexibility.
- Reduces cementitious shrinkage.

TYPICAL USES

- Spalled concrete repairing, floors, beams and pre-cast slabs.
- Improves bonding of concrete & cement mortar as well as gypsum plasters.
- **Non-Structural bond** for concrete repairs with polymer modified repair mortars.
- **Waterproofing** of screeds, plasters and tile grout, basements side walls and rafts, lift pits, inspections pits, sunken/overhead water tank, sunken portions of bathrooms and toilets, balconies as well as exposed concrete roofs before finished screed.
- Plastering.
- Tiling.
- Where thin applications (underlay / screed) are required.
- Floor screeds and toppings.



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APPLICATION PROCEDURE

Surface Preparation:

- Surface must be clean, free of oil and grease, old caulk, dirt, dust & other foreign material.
- Remove all loose material.
- Concrete must be structurally sound,
- For application on existing concrete, all loose particles must be completely removed.
- Wire brush and rinse surface if necessary.
- All porous surfaces should be thoroughly saturated (soaked) with clean water prior to application but free of standing / ponding water.

BONDING SLURRY:

Reinforcing steel must be primed with **mart-Prime ZR** immediately after cleaning.

Mixing for Bonding Slurry:

- Shake container well before use.
- Mix 1 part of **mart-Keybond Latex** to 1 ½ part Portland cement.
- In a clean bucket, add cement, whilst mixing add gauging liquid slowly.
- Mix thoroughly for 2 – 3 minutes with a low-speed mixer until a smooth, uniform lump free consistency.
- Addition gauging liquid can be added if mix becomes too stiff.
- Stir frequently during application.

Application of Bonding Slurry:

- Existing concrete must still be fully saturated but free of standing / ponding water.
- Can be applied as a scraper coat with a trowel or with a stiff brush.
- Ensuring thorough coverage, specifically addressing all voids and areas around exposed aggregates.
- Apply mortar / screed overlay while bond coat is still tacky.

* **Bonding Slurry** for soffits and vertical applications.

WATERPROOFING SLURRY:

Mixing for Waterproofing Slurry:

- Shake container well before use.
- Mix 1 part of **mart-Keybond Latex** to 2 parts of cement.
- In a clean bucket, add cement, whilst mixing add gauging liquid slowly.
- Mix thoroughly for 2 – 3 minutes with a low-speed mixer until a smooth, uniform lump free consistency.

Application of Waterproofing Slurry:

- Existing concrete must still be fully saturated but free of standing / ponding water.
- Work first coat well into damp substrate by using a stiff brush.
- Ensuring thorough coverage, specifically addressing all voids and areas around exposed aggregates.
- Once first coat has dried (3 – 4 hours), apply second coat at right angle to first coat.
- Apply mortar / screed overlay while bond coat is still tacky.

GYPSUM:

- **mart-Keybond Latex** can be applied directly onto gypsum-based materials.
- Apply liberally with brush or roller.
- Plaster onto tacky **mart-Keybond Latex**.

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APPLICATION PROCEDURE

mart-Keybond Latex is designed to be used as an admixture for:

Floor Toppings / Screed:

Recommended Mixing Ratio

10lt Mart-Keybond Latex
10lt water
50kg Portland cement
75kg of sand
75kg of coarse aggregate
(6mm down)

Repair Mortar:

Recommended Mixing Ratio

10lt of mart-Keybond Latex
10lt of water
50kg Portland cement
150kg of sieved sand

Plastering mortars for waterproofing 15MPa:

Recommended Mixing Ratio per m³

145lt mart-Keybond Latex
290lt water
464 kg of Portland Cement
1717 kg of plaster sand

*Properties are of typical mix and guiding in nature and may vary depending upon aggregates used & mix constituents. Mart Solutions strongly advises to carry out site mix design and site trials.

Mixing for Mortar/Screed:

- In a pan type mixer, add fresh lump free OPC cement (Ordinary Portland Cement), well graded, clean sand/aggregate free of excessive fines.
- Mix powdered mixture for a minimum of 2 minutes
*hand mixing is only permissible if total mix is less than 25kg.
- Mix required water and **mart-Keybond Latex** together for 2 minutes in a clean container.
- Slowly add liquid mix in the mixer containing powdered mix until required consistency is achieved.

Application of Toppings and Screeds:

- Apply bonding slurry onto prepared surface as per bonding slurry application method.
- While bonding slurry is still tacky, modified screed mix should be placed.
- Screed should be well compacted by hand and trowelled to finish using a wooden float or steel trowel.

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TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Colour	Milky White Liquid
Solids (+1%)	30 - 35%
Viscosity ¹ (cP):	<100
Ph	9.0 - 10.0
Tg ² (°C)	-2
Specific Gravity	1.00
Shelf Life	12-month Shelf life if kept in the original unopened packaging.

COVERAGE FOR ESTIMATING PURPOSE ONLY

Used as neat / undiluted solution applied as a primer / bonding liquid. Application rate: 10 - 12 m²/ltr.

Used as a bonding slurry mixed with OPC cement. Application rate: 5 - 6 m².

Coverage will vary depending on the texture and porosity of the surfaces that **mart-Keybond Latex** is applied to.

LIMITATIONS

- Always use cool, clean fresh water for any mix.
- Do not allow modified mixes to dry out too rapidly as this may deny the cement sufficient time to hydrate completely and reduce overall final strength.

PACKAGING

mart-Keybond Latex is available in 5, 25, 200 and 1000lt containers.

HEALTH AND SAFETY

- Contact with the skin should be avoided by wearing gloves, eye protection and protective clothing whilst application is in process.
- In case of eye contact flush eyes well with clean water and obtain medical advice immediately.
- Wash hands thoroughly after contact.
- Refer to **mart-Keybond Latex MSDS** sheet.

Disclaimer: The information contained in this document is given to the best of Mart Solutions' knowledge and is the result of extensive testing. However, this document will not under any circumstances be considered as a warranty involving Mart Solutions' liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. Mart Solutions specialists are at the disposal of the users in order to help them with any problems encountered.