

# STYRENE-ACRYLIC LIQUID ADMIXTURE FOR MIXING OF BONDING SLURRIES AND IMPROVEMENT OF MORTARS AND CONCRETES

# DESCRIPTION

**MAXBOND® LATEX** is a water-based styrene-acrylic liquid admixture for mixing of bonding slurries and improvement of physical properties for mortars and concretes. Mixes prepared with **MAXBOND® LATEX** have a greater adhesion, workability, cohesion and retention of the mixing water.

Once hardened, **MAXBOND® LATEX** improves abrasion and wearing resistance and reduces water absorption by capillarity.

# APPLICATIONS

- Cement-based bonding slurries in repairs, screeds and levelling layers, previously to place concrete or mortar, on both vertical and horizontal surfaces.
- Liquid admixture of mortars for patching, levelling and toppings of pavements.
- Sealer primer on porous substrates, to provide homogeneous absorption surfaces.
- Improvement of quality and durability for masonries, coats and renders in façades.
- Admixture for tiling mortars.

# ADVANTAGES

- It is stable and non-degradable under permanent moist conditions.
- Improves adhesion over surfaces with very low porosity or with high absorption.

- Improves workability of mixes and reduces water demand with the same consistency, thus minimizes the hydraulic shrinkage and cracks during the hardening.
- Provides a better curing under hot weather conditions due to the higher water retention, reducing the risk of plastic cracks.
- Increases abrasion and wearing resistance of patches and toppings.
- Increases cohesion and compactness, decreasing segregation of fresh mortar.
- Improves waterproofness of mortars by reducing the water absorption by capillarity.
- Improves chemical resistance and reduces salt ingress.
- Increases durability and weather resistance of mortars and coatings.
- Solvent-free, non-toxic and nonflammable. Environment friendly.

# **APPLICATION INSTRUCTIONS**

#### Surface preparation

Surface must be sound and clean. Remove all damaged concrete and loose particles to expose a structurally resistant substrate. Clean all traces of paint, dust, grease, efflorescence, gypsum, plaster and mould release compounds. Use mechanical methods such as high water pressure or sandblasting. Saturate surface with clean water but do not leave free-standing or pooled water.



#### Application as pure primer:

On porous substrates and/or with different grades of absorption, in order to provide a homogeneous surface, apply one coat of pure **MAXBOND<sup>®</sup> LATEX** by brush, broom or roller leaving no puddles. Let to dry for 15-20 minutes depending on weather conditions and porosity, and once **MAXBOND® LATEX** has been completely absorbed in the substrate, place the mortar or concrete. The consumption estimated depending on substrate porosity is about 0,15 to 0,20 kg/m<sup>2</sup> per coat. Very porous substrates may require a second coat to seal the surface.

#### Preparation of bonding slurries:

Add from 1,0 - 1,5 parts of cement to 1 part of pure **MAXBOND® LATEX** and mix preferably by mechanical means such as a slow speed mixing drill (400-600 rpm) until achieve a homogeneous slurry free of lumps. Saturate surface with water and then apply the slurry by **MAXBRUSH** brush or **MAXBROOM** boom sealing all voids and holes in layers not exceeding 2,0 mm thickness. Before slurry dries, place the mortar or concrete. If the bonding slurry dries out, apply a new coat to proceed with the job.

# Preparation of renders, screeds and mortars:

Mix previously the cement and clean sand free of fillers in the required proportions according to the final use. In a separate container dilute 1 part of **MAXBOND® LATEX** with 2 parts of water. Mix the mortar and the dilution by mechanical means such as a slow speed mixing drill (400-600 rpm) until achieves a homogeneous mixture free of lumps. Apply the mortar by trowel without pressing too hard. If several layers need to be applied, scratch the surface of each layer with a trowel to improve the adhesion of the following one, which can be placed once the previous layer has set. Allow it to cure for seven days before painting over or opening to wheeled traffic.

Trial mixes with other different ratios can be tested depending on the specific work and final properties required.

#### **Applications conditions**

Do not apply below 5°C and if lower temperature or rainfall are expected within the following 24 hours. Do not apply on frozen surfaces. With high temperatures and/or wind, damp completely the substrate with water.

#### Curing

Under windy and hot weather conditions (>30°C), or direct sunlight exposure, usual moist curing procedures for cement-based products must be taken, such as water spray or covering with wet burlaps and/or plastic sheet, for at least the first 24 hours. Also a water-based curing agent such as **MAXCURE**<sup>®</sup> (Technical Bulletin No. 49) is recommended.

#### Cleaning

Tools and equipments should be cleaned immediately with water after use. Once material hardens, it can be removed only by mechanical methods.

#### **IMPORTANT INDICATIONS**

- Make previous trials to determine the proper ratio of *MAXBOND® LATEX* with mortars in function with the application and final requirements.
- For structural repair mortars or waterproofing mortars, use MAXCRYL<sup>®</sup> as liquid admixture for mixing.
- Do not use solvent-based curing agents.
- For other uses not specified in this Technical Bulletin or further information, consult our Technical Department.

#### PACKAGING

*MAXBOND*<sup>®</sup> *LATEX* is supplied in 25 kg jerrycans and 220 kg and 1.000 kg drums.

#### STORAGE

Twelve months in its original unopened containers, in a dry and covered place protected from frost, with temperatures above 5°C. In case of freezing it must be heated slowly, while being regularly stirred, until achieve its usual liquid appearance without lumps. Avoid overheating.

#### SAFETY AND HEALTH

**MAXBOND® LATEX** is not a toxic product but eye and skin contact must be avoided. Use gloves and safety goggles. In case of eye contact thoroughly clean with clean water, but do not rub. In case of skin contact, wash affected areas with water and soap. If irritation persists, seek medical attention. It is available Safety Data Sheet of **MAXBOND® LATEX**. It is non-corrosive and non-flammable.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

#### TECHNICAL DATA

Characteristics of the product	
Colour and appearance	Milky liquid
Density (g/cm <sup>3</sup> )	$1,02 \pm 0,05$
рН	10 ± 1
Temperature for application and curing (°C)	>5

#### **GUARANTEE**

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