

Water Resistant Bonding Agent and Mortar Additive

Butyl Acrylate Styrene Latex Base

Description	Latex BA is a modified Styrene Butadiene emulsion to be mixed with cement (neat) or cement/sand mortar for improved adhesion and water resistance properties
Uses	<ul style="list-style-type: none"> * For higher strength floor screeds with less "dusting" improved flexibility and resistance to cracking * For wear resistant floor toppings in water treatment works, sewage systems etc. together with Cem Seal Slurry system. * As an additive to repair mortars for patching and filling. * As a bonding agent for rendering, tile fixing and masonry jointing mortars, etc. * As a bonding grout between old and new concrete, as well as in construction joints
Advantages	<ul style="list-style-type: none"> * Increases adhesion, flexural and tensile strength. * Better abrasion resistance (less dusting). * Reduces water permeability. * Increases chemical resistance. * Non-toxic, non corrosive and non-flammable * Easy to use.

Technical Specification Product Data

Appearance	Milky white liquid
Density	Approximately 1.0kg/litre
Solid Content	Approximately 42% (±1.5)
Application Temperature	Minimum 8°C
Consumption Guide	Approximately LamaCo-Latex BA requirement in litre per m ² per 10mm thickness. Mixing Ratios by volume

		LaMaCo Latex BA : Water													
		2:1		1:1		1: 1.5		1:2		1:2.5		1:3		1:4	
W/C Ratio		0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8
Cement:Sand	1:1	3.0	4.0	2.3	3.0	1.8	2.4	1.5	2.1	1.3	1.7	1.1	1.5	0.9	1.2
	1:1.5	2.2	3.0	1.6	2.3	1.3	1.8	1.1	1.5	0.9	1.3	0.8	1.1	0.7	0.9
	1:2	1.9	2.5	1.4	1.9	1.1	1.5	0.9	1.3	0.8	1.1	0.7	1.0	0.6	0.8
	1:2.5	1.6	2.2	1.2	1.7	1.0	1.3	0.8	1.1	0.7	1.0	0.6	0.8	0.5	0.7
	1:3	1.4	2.0	1.1	1.5	0.8	1.2	0.7	1.0	0.6	0.9	0.5	0.8	0.4	0.6
	1:4	1.2	1.6	0.9	1.2	0.7	1.0	0.6	0.8	0.5	0.7	0.4	0.6	0.3	0.5

Example: Floor Screed-normal use

Latex Solution:	1 part LaMaCo-Latex BA : 3 parts water
Cement/Sand:	1 part cement: 2.5 parts sand
W/C Ratio:	0.5
Screed Thickness:	100mm

Based on the consumption guide above, the **LaMaCo-Latex BA** consumption is 6 litre/m³ for a 100mm screed.

Mix Designs For Specific Application

A. Bonding Coat. For rendering on to difficult substrates, waterproof renderings with “**Cem Seal Slurry**” System, laying of floor screeds, concrete repair, patching & filling, bonding between new and old concrete, etc., a bonding coat of mortar or slurry with **LaMaCo-Latex BA** solution is recommended.

B. Repair and Patching Mortar, Masonry Joints, etc.

Solution: **LaMaCo-Latex BA** with water 1:1
Dry mix: Cement with sand 1:1
Sand Grain Size: See General Guidelines-Sand
W/C Ratio: Mix to suit requirement/application. Generally, use as little gauging water (**LaMaCo-Latex BA**) as possible.
Consumption: See “Consumption Guide” table (Approx. 0.7-2.3 litre of **LaMaCo-Latex BA** per m² per 10mm thickness based on W/C Ratio of 0.5-0.8)

B-1 Repair and Patching Mortar

Apply the stiff plastic mortar on the well saturated substrate. For areas subject to heavy use or application onto very smooth substrate apply a bonding coat prior to application of mortar. Refer to Section A part (3). Also see General Guidelines – High Cement Mortar/Thick Applications

B-2 Masonry Joints

Mix mortar into a paste-like consistency and paste firmly into the previously wetted joints with a spatula or pointing trowel and finish off with a pointing trowel.

With a richer **LaMaCo-Latex BA** solution, e.g. **LaMaCo-Latex BA**: water 2:1, a higher chemical resistance is achieved especially against urine ammonia and diluted alkaline solutions

C. Floor screeds, intermediate coats and wear resistant screeds.

Solution: **LaMaCo-Latex BA** with water
-for hard wearing floors 1:1 to 1:2
-for normal use 1:2 to 1:4
Dry mix: Cement with sand 1:2 to 1:3
Sand Grain Size: See General Guidelines-Sand
W/C Ratio: Mix to suit requirement/application. Generally, use as little gauging water (**LaMaCo-Latex BA** Solution) as possible.
Consumption: See “(Consumption Guide” Table (approx. 0.4 – 1.9 litre **LaMaCo- Latex BA** per m² per 10mm thickness based on W/C Ratio of 0.5-0.8)

After applying the bonding coat onto the substrate (refer to Section A part 3), place the mortar wet on wet in layers of 15-30 mm thickness*. Compact well and rub down. Pay attention to the arrangement of expansion and construction joints. Observe normal cutting practices.

When no curing compound is available at site, curing may be done by spraying the surface with **LaMaCo-Latex BA** solution. (1 part **LaMaCo-Latex BA** to 3 parts water) as soon as the mortar has started to harden. After 24 hours, keep the surface wet by spraying water on it.

Note: See also General Guidelines – High Cement Mortar/Thick Application

D. Rendering

LaMaCo-Latex BA is added to the rendering mortar where properties such as improved adhesion, better flexibility, reduced shrinkage and water permeability is required.

D-1 Normal rendering with hydraulic lime mortar

Solution: **LaMaCo-Latex BA** with water 1:2 to 1:4
Dry Mix: Blinder with sand 1:2.5 to 1:4
Sand Grain size: 0.3-0.8mm
W/C ratio: Mix to suit requirement/application. Generally, use as little gauging water (**LaMaCo-Latex BA**) as possible.
Consumption: See "Consumption Guide" Table. (Approx. 0.3-1.1 litre of **LaMaCo-Latex BA** per m² per 10 mm thickness based on W/C ratio of 0.5-0.8)

D-2 Cement/Sand rendering

Solution: **LaMaCo-Latex BA** with water 1:1 to 1:2
Dry Mix: Cement with sand 1:2 to 1:3
Sand Grain Size: 0.3-0.8mm
W/C Ratio: Mix to suit requirement/application. Generally, use as little gauging water (**LaMaCo-Latex BA** Solution) as possible.
Consumption: See "Consumption Guide" Table (approx.0.3-1.1 litre of **LaMaCo-Latex BA** per m² per 10 mm thickness based on W/C Ratio of 0.5-0.8)

Apply the bonding coat according to Section A, part (1). The rendering is then applied on to the tack-free bond coat in accordance with good rendering practice.

E. Adhesive Mortar. (e.g. as a tiling adhesive)

Solution: **LaMaCo-Latex BA** with water 1:2
Dry Mix: Cement with sand 1:3
Sand grain Size: 0-2mm with higher proportion of fine sand under 0.2mm
W/C Ratio: Mix to suit requirement/application. Generally, use as little gauging water (**LaMaCo-Latex BA**) as possible.
Consumption: See "Consumption Guide" Table. (Approx. 0.7-1.0 litre of **LaMaCo-Latex-BA** per m² per 10 mm thickness based on W/C Ratio of 0.5-0.8)

Mix up a mortar for application by trowel and fix tiles according to good application practice (thin layer method), onto a smooth concrete or rendering/screed finish.

For waterproof **joint-grouting**, a mixture of pure cement and **LaMaCo-Latex BA** shall be used.

F. Gypsum Plaster

Solution: **LaMaCo-Latex BA** with water 1:3
Dry Mix: Gypsum plaster

Apply a bonding coat with the gypsum plaster mixed with the **LaMaco-Latex BA** solution until a slurry consistency is achieved to ensure a good key for the final coat. Mix the final coat with the **LaMaCo-Latex BA** will be harder, and less water absorbent.

Substrate Preparation The substrate must be sound, clean and free from oil, grease laitance, loose particles or dust. All absorbent substrates must be prewetted to saturated surface dry (SSD) condition.

Mixing Mix sand and cement first, then add Sika-Latex solution as required (**LaMaCo-Latex BA** solution is **LaMaCo-Latex BA** diluted with water – see mix designs) Mix either by hand with a low speed drill for no more than 2 minutes.

Application **General Guidelines**

Sand: Use only clean, washed and well graded sand. Grain size should suit application thickness and surface finish. As a guide, the following is recommended:

Application Thickness	Grain Size Diameter
Up to 2mm	Up to 0.5 mm
2 to 5mm	Up to 1.0 mm
5 to 15 mm	Up to 3.0 mm
Over 15 mm	Up to 6.0 mm

High Cement Mortar/Thick Applications: Thick mortar with high cement content (cement: sand – 1:1 to 1:2) should be applied in layers of up to 15 mm thickness per layer. Always work wet on wet.

Curing When no subsequent overcoating is applied on the **LaMaCo-Latex BA** screed or mortar, normal curing practice must be observed. For best effect, use Sika Antisol curing membrane.

Important Notes

- * **LaMaCo-Latex BA** mortar should be thoroughly mixed (not no longer than 1-2 minutes otherwise too much air may be entrained)
- * Do not use neat **LaMaCo-Latex BA** as a bonding coat. A delay in subsequent overcoating may result in a film forming on the substrate causing separation of subsequent layers. Use **LaMaCo-Latex BA** as an additive to make up a cementitious slurry or a cement/sand mortar.
- * Over dilution of **LaMaCo-Latex BA** solution, for e.g. more than 1:4 (**LaMaCo-Latex BA**: Water) is not recommended as this will result in very little performance improvement)
- * **LaMaCo-Latex BA** mortar should not be applied at temperature below 8°C.
- * **LaMaCo-Latex BA** mortar is not resistant to constant contact with petrol, organic solvents and acids.
- * When working with **LaMaCo-Latex BA** observe the following working rules as if working with ordinary cement mortars:
 - Clean and carefully prewet surface (saturated surface dry).
 - Use clean sand with suitable sieve grading curve (sieve distribution).
 - Use as little gauging water (**LaMaCo-Latex BA** solution) as possible.
 - For multi-layered application, always work wet on wet.
 - Protect against rapid drying due to wind and extreme temperature. (See section under "Curing").

Typical Results

The following results are based on a **LaMaCo-Latex BA** mortar produced with good quality normal Portland cement; clean sharp, well graded sand and a controlled W/C ratio (wetness of the sand must be taken into consideration):

Mix Design: Cement: Sand – 1:3
LaMaCo-Latex BA: Water- 1:3
W/C Ratio – Approximately 0.6
(Portland cement type 1, sand well graded 0-4mm)

Results at 28 days

Compressive strength: ± 35N/mm²
Flexural strength: ± 6.5N/mm²
Bond strength: ± 1.5N/mm² (Pull-Off Strength Test)

Packaging

20 litre pails
200 litre drums (available upon request)

Safety Information

Detailed safety information is contained in each material safety data sheet, which can be obtained from our sales offices

Storage

Properly stored, **LaMaCo-Latex BA** has a shelf life of at least 12 months.

Handling Precautions

Wash off any concentrate substances on the skin with plenty of water before it dries. During mixing and application ensure adequate ventilation since the silicone component contains active ingredient which is volatile and may cause eye watering in confined spaces. Avoid generation of airborne dust during mixing. Sika-Latex BA contains corrosive inhibitor and, therefore, in line with current legislation, is classified as irritating to eyes and skin. For this reason the following precautions should be observed:-
Avoid contact with the skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and keep the product out of the reach of children.

The General Term & Conditions

All recommendations for use of our product, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for this intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

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