iLatex Polymer Additive

Adhesion and water resistance additive for cement-based mortars and screeds

5 kg · COMPLEMENTARY PRODUCT

PRODUCT DESCRIPTION

DRYVATEC L101 iLatex is a polymer latex additive added to the mixing water of cement-based mortars, screeds and repair applications to increase adhesion, flexibility and water resistance.

Cement mortar is brittle by nature and bonds poorly to non-absorbent surfaces. The polymer additive forms a continuous polymer film network within the hardened mortar matrix. This network bridges the voids between cement crystals, making the mortar both more flexible and more adhesive.

Its effect is decisive in three situations in particular: thin-section applications, non-absorbent or smooth substrates and soffit work. In repairs that will be covered by waterproofing its use is effectively mandatory.

PROPERTIES GAINED

- Adhesion: the bond strength of the mortar to the substrate increases markedly.
- Flexibility: matrix brittleness is reduced; small movements are accommodated without cracking.
- Water resistance: the polymer film bridges capillary voids and reduces water passage.
- Resistance to dusting: surface hardness increases and dusting after curing is reduced.
- Workability: the mortar spreads more easily and holds better overhead.

TECHNICAL DATA

AT +23 °C / 50 % RELATIVE HUMIDITY	
Product type	Polymer latex additive
Polymer type	Styrene-butadiene (SBR) based emulsion
Appearance / colour	White emulsion
Density (20 °C)	1.00 – 1.05 g/cm³
Solids content	40 – 50 %
pH	8 – 10
Dosage	5 – 20 % by weight of cement
Method of addition	To the mixing water, before the powder
Application temperature	+5 °C / +30 °C
Shelf life	12 months
Packaging	5 kg

Values are typical figures obtained at +23 °C / 50 % relative humidity.

NOT USED ON ITS OWN

L101 is not a waterproofing or repair material. It is used within a cement-based mortar or screed, added to the mixing water.

SELECTING THE DOSAGE

ADDITIVE DOSAGE	PROPERTY GAINED	RECOMMENDED USE
5 %	Basic increase in adhesion	Standard surface repair
10 %	Flexibility + water resistance	Surfaces beneath waterproofing
20 %	Maximum bond	Old smooth concrete, soffit work

The dosage is calculated on the weight of cement. Where the cement content of a pre-bagged mortar is not known, the manufacturer's data should be consulted. When the additive is used, the quantity of mixing water is reduced so that the total liquid ratio remains unchanged. Overdosing extends the setting time and delays strength development.

FIELDS OF APPLICATION

- Strengthening R101 and R102 repair mortars
- Increasing adhesion in surface repairs prior to waterproofing
- Internal cove fillets and tie-rod hole fills
- Flexibility and dusting resistance in screeds and levelling mortars
- Achieving a bond on old concrete and smooth surfaces

ADDING TO THE MIX

01 Determine the total quantity of mixing water required by the mortar.

02 Deduct the calculated dose of L101 from that quantity — the total liquid must remain unchanged.

03 Add L101 to the water first and stir until homogeneous.

04 Add the powder component slowly thereafter.

05 Mix to a homogeneous consistency with a low-speed (400 rpm) mixer and leave to mature for 5 minutes.

COMMON MISTAKES

- **Adding the additive to the dry powder**
  The polymer does not disperse evenly; part of the mortar remains without additive.
- **Increasing the total liquid ratio**
  The additive is deducted from the water, not added to it. Otherwise the water/cement ratio is altered and strength falls.
- **Overdosing**
  Above 20 % the setting time is extended, strength development is delayed and cost rises unnecessarily.
- **Allowing it to freeze**
  Latex emulsions separate into phases after freezing and lose their function.

POST-APPLICATION CHECKS

- Adhesion: tapping the cured surface lightly with a hammer should not produce a hollow sound.
- Dusting: no dust should come away when the surface is rubbed by hand.
- Cracking: no shrinkage cracking; if present, the total liquid ratio should be reviewed.
- Setting: mortar containing the additive may set somewhat more slowly; the interval between layers is adjusted accordingly.

STORAGE

12 months in the original packaging, stored dry and cool and protected from frost. The container must be resealed tightly after opening.

SAFETY

Wear gloves and eye protection. Mortar containing the additive is alkaline when wet; rinse thoroughly with water on skin or eye contact. Refer to the Safety Data Sheet.

LIMITATIONS

Not used on its own. Not compatible with gypsum-based mortars. The stated dosage range must not be exceeded.

LEGAL NOTICE

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