

POLYLITH-200

HIGH PERFORMANCE LATEX MODIFIER FOR CEMENT

DESCRIPTION

POLYLITH-200 is a synthetic latex which when added to mortar and concrete mixes enhances their basic properties. It gives the cured compound exceptional properties : including excellent adhesion of mortar to brick, concrete, ceramic tiles etc., good adherence to common building materials such as timber, the majority of metals and also expanded polystyrene foam and rigid polyurethane foam.

POLYLITH-200 gives a marked improvement in tensile strength, impact and abrasion resistance.

POLYLITH-200 mortar has excellent UV, chemical and water resistance.

TYPICAL USES

- Repair of concrete and masonry surfaces.
- Re-surfacing or leveling of concrete floors and slabs.
- Grouting of penetrations and bedding of machine bases etc.
- Waterproof grouts and cement based adhesives.
- Patching and repair of swimming pools and water tanks.
- Sealer for concrete and asbestos cement sheet.
- Cement grouting of ceramic tiles.
- Precast panel patching
- Ceramic tile, brick or slate adhesive.
- Storage tanks, silos, reservoirs, and towers.
- Permanent bonding or cementitious coatings, textures and plaster.
- Waterproof render coat.

FEATURES

- Economical and easy to use.
- Single pack new generation emulsion.
- Totally waterproof.
- Resists acids, alkalis, fats and oils.
- Improves tensile, flexural, impact and compressive strength
- Compatible with concrete for concrete repairs.
- Non-toxic and non-flammable.
- Excellent exterior durability.
- Multi-purpose application.
- Thin or thick builds on a wide variety of substrates.

TYPICAL PROPERTIES

POLYLITH-200/CEMENT RATIO wt/wt.	WITHOUT POLYLITH-200	POLYLITH-200 @ 25% / wt CEMENT
Adhesion to concrete N/mm ²	0.07	2.10
Adhesion to steel (dry) N/mm ²	0.00	2.00
Tensile strength N/mm ²	2.00	4.00
Compressive strength N/mm ²	56.00	50.00
Flexural strength N/mm ²	7.10	13.20
Flexural strength - after 1 year at 70°C N/mm ²	5.20	14.30
Adhesion to concrete after 6 months at 70°C N/mm ²	0.00	1.90
Shrinkage during drying - % shrinkage	0.07	0.01
Water vapour permeability (g/m ² /24hrs)	46.90	4.00
Water penetration (kg/m ² /24hrs) N/mm ²	100.00	30.00
Note : N/mm² = 1MPa = 145psi		

SURFACE PREPARATION

All surface should be clean and free of all coatings and loose matter. Boney concrete should be removed. Any exposed steel shall be coated with PRIMER COAT.

NOTE :

Porous or very smooth surfaces may be primed with a slurry coat of Fine Sand : Cement : POLYLITH-200 : Water (1 : 2 : 1 : 1, by weight).

The fine sand may be deleted depending on surface finish.

Dampen surface for up to 1 hour prior to application of priming coat.

MIXING RATIO

Generally POLYLITH-200 is added by weight at the rate of 25% of the cement content of the mix.

(Sand : Cement = 2 : 1)

Waterproof render - Increase POLYLITH-200 to 50% of the cement content.

(Liquid required approx. POLYLITH-200 : Water = 2 : 1)

MIXING

Generally, Mix the dry ingredients, add the estimated amount of POLYLITH-200 after diluting with additional required water (approx. equal parts).

NOTE :

- Because of its plasticizing and air-entrained action the addition of POLYLITH-200 to a mortar mix will enable the water : cement ratio to be reduced for a given workability. Typically, if a water : cement ratio of 0.5 applies to an unmodified mortar, this could be reduced to 0.28-0.35 depending on the level of POLYLITH-200 allowance.
- As working temperature increases, so workability time is shortened. If applying modified mortar to porous substrates at elevated temperatures, and in windy conditions, the loss of water into the substrate due to suction, and into the atmosphere through evaporation, may lead to difficulties with trowelling and poor adhesion.
- The British Standard Code of Practice CP114;Part 2;1969 recommends that concreting should not be carried out unless "the concrete has a temperature of at least 4°C and that the temperature of the concrete is maintained above 2°C until it has thoroughly hardened". These recommendations remain valid for latex modified mortars and concretes. Equipment may be lubricated with a mixture of equal parts POLYLITH-200 and water.

APPLICATION

Renderers :

The thickness of modified renders should not exceed 7mm for each coat.

Thicker coats may lead to sagging, or in the case of soffits separation from the wet primer coat.

Scratch the surface of each coat and leave for at least 6 hours before applying further coats.

The final coat should be trowelled / floated to a smooth finish as the work proceeds.

Floor Toppings :

General purpose toppings based on POLYLITH-200 can be laid to any thickness, depending on the sieve grading of the sand. When joining new work to old work it is preferable to cut into the old concrete with a diamond or masonry disc to ensure a minimum new topping thickness of 10mm. However, feather edging is permissible for non critical areas. Where feather edging is used the normal 24 hours damp curing is particularly important. Heavy duty floor toppings are normally laid at a minimum thickness of 12mm. Whilst a 'semi-dry' mix is recommended, the consistency must readily permit complete compaction by the methods used. After mixing, the POLYLITH-200 mortars should be placed over the still wet priming coat. It is then leveled / compacted and floated smooth. Finish as required. Thick topping slabs (50mm +) do not require POLYLITH-200 additive but should be placed directly onto the wet POLYLITH-200 priming coat.

CLEAN UP

As POLYLITH-200 modified materials have excellent adhesion and water resistance, it is essential that tools and other surface are cleaned with water before final set occurs. Xylene and paint stripper may assist in removal of partially hardened material.

PACKAGING AND STORAGE

- 200 Litre drums
- 20 Litre pails

POLYLITH-200 should not be subject to high or low temperature excesses. Store in a protected area.