

TECHNICAL DATA SHEET

PRODUCT NAME:

ACRYLIC POLYMER 3004



(Poly Acrylic Polymer for Waterproofing & Cement Modification)

Description

Kayra Acrylic Polymer 3004 is composed of acrylic co-polymer emulsions & additives. It is used as a bonding agent for new to old substrates & cement mortar modifier because it provides strong bonds to old & new concrete. Improves tensile & flexural strength of concrete and increases the durability of the structure. When mixed with cement, it forms a matrix and provides excellent waterproof coating.

Typical Applications

- Concrete repair – spalled concrete, floor, columns, beams, chajja, slab & parapet etc.
- Bond coat – Old to new concrete, masonry, stonework plaster, fixing or re-fixing slip bricks, tiles, marbles & bedding.
- Priming – Reinforcement steel.
- Additive – Additives for renders & mortars.
- Coating – As a flexibiliser to cement.

Features

- Chloride content - Contains no chloride.
 - User friendly - Single component ready to use, simply brushed onto concrete as a primer.
 - Bonding - Provides excellent bond to concrete, masonry, stonework, plywood, gypsum & plaster.
 - Strength - Improves tensile, flexural and compressive strength as compared to control concrete hence increases the durability of structures.
 - Compatibility - Compatible with all common cements hence it is versatile.
 - Dust generation - Excellent as a dust proof sealer.
 - Waterproofing - Improves waterproofing properties when admixed with cement.
 - Flexibility - Improves flexural strength of cementitious composition.
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Packaging

Available in 20 kg ,50 kg , 220 kg packs.

Method of Application

1. Surface Preparation

- Clean the surface thoroughly to remove dust, loose plaster, unsound or contaminated material, oil, grease, paint, corrosion deposits, or algae.
 - If breaking out is not required, roughen the surface and remove any laitance using light scarifying or grit blasting.
 - In case of concrete repair, fully expose corroded reinforcement steel and remove all loose scale and corrosion deposits. Clean the steel to a bright metal finish, especially hidden sections of exposed bars
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2. Application

Reinforcing Steel Priming:

- Apply one coat of **Kayra Acrylic Polymer 3004** mixed with cement in a 1:1 ratio by volume as slurry on all exposed reinforcement steel and allow it to dry.
- A second coat is also recommended for enhanced protection. Let it dry completely before proceeding.

Primer & Bond Coat:

- Apply **Kayra Acrylic Polymer 3004** directly with a brush or roller onto the prepared concrete substrate.
- Avoid excess material build-up.
- The repair mortar, screed, or overlay should be applied while the surface is still tacky to ensure strong bonding.

Render and Mortars

A suitable mix ratio for patching repair mortar or render is as follows:

- **Portland Cement** – 50 kg
- **Washed Sand** – 150 kg
- **Kayra Acrylic Polymer 3003** – 5 to 7.5 kg
- Add clean water as required to achieve the desired consistency for application.

This mix ensures improved workability, bonding, and durability of the mortar or render.

Bonding Slurry Coat

- For areas requiring extra adhesion, **Kayra Acrylic Polymer 3003** should be mixed with cement in a **1:1 ratio by volume**.
- This slurry should be brush-applied onto the prepared substrate before applying the mortar, render, or concrete overlay.

Curing

- Cure the repaired or rendered area using **Kayra Acrylic Polymer 3003** to minimize rapid water loss.
- Under extreme drying conditions (like high heat or wind), additional curing methods such as moist curing or covering with wet hessian may be necessary.
- Protect freshly applied material from **frost, direct sunlight**, and **rain** until fully cured.

Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Appearance	–	Milky white liquid
Chloride Content	–	Nil
pH	–	7.0 – 8.0
Compressive Strength, N/mm ²	BS 6319 Part 2: 1983	Dry condition: 30–40Wet condition: 25–30
Adhesion Strength, Concrete Dry Condition, N/mm ²	BS 6319 Part 4: 1984	5 – 20
Curing Efficiency, %	BS 7542:1992	>55

Theoretical Coverage

- As coating: Approximately **5–7 m²/kg**

Shelf Life

- Best before **18 months** from the date of manufacture when stored in sealed pack under proper conditions.
 - Store in a cool & dry place in unopened condition, away from direct sunlight.
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Health & Safety

- **Non-flammable**
- Wear suitable protective clothing, gloves, eye protection, and respiratory equipment during application.
- In case of contact with **skin**, rinse with plenty of clean water and wash with soap.
- In case of contact with **eyes**, rinse immediately with clean water and seek medical advice.

Disclaimer: KAYRA construction chemical dry mix products are guaranteed against material and manufacturing defects. The product is sold as per standard terms and conditions of sales, copies of which may be obtained on request. KAYRA's endeavor is to ensure correct and accurate information on product performance and recommended specifications as mentioned in literature, and still may have to abstain from circumstantial deviations which are beyond control due to human intervention, atmospheric conditions or natural calamities which may not be in accordance with any advice, specification, recommendation or information given by it.

