SYLOCON®

There are different grades of SYLOCON for Plaster, Screed concrete and R.C.C

Nanocomposite Plaster Additive

Overview

SYLOCON® is a nanocomposite integral viscous liquid additive engineered for pozzolanic materials. By forming microscopic crystals within concrete and mortar capillaries, it blocks water ingress, eliminates shrinkage cracks, and significantly enhances structural integrity without altering the fundamental chemical composition of cement.

Key Advantages

Minimizing Rebound Loss

- **Superior Adhesion:** Bonds seamlessly to ordinary bricks, concrete blocks, foamed cement concrete blocks, and hacked RCC columns, beams, and ceilings. It drastically reduces rebound loss, increases plastering speed, and strengthens wall integrity.
- **Enhanced Cohesion:** High mortar cohesion prevents material drop-off during application. The resulting non-shrinking plaster resists crack formation after curing and drying.

Advanced Waterproofing & Strength

- **Pore-Plugging Crystallization:** Scanning Electron Microscopy (SEM) confirms that SYLOCON® generates hydration crystals of varying shapes and sizes that fill capillaries and block water percolation.
- **Microstructural Reinforcement:** X-ray Diffraction (XRD) analysis demonstrates that nano-sized hydration products improve the cement-aggregate interface, increasing overall concrete strength while preserving its core properties.

Recommended Dose of SYLOCON®

1 Ltr. per 50 Kgs. cement.

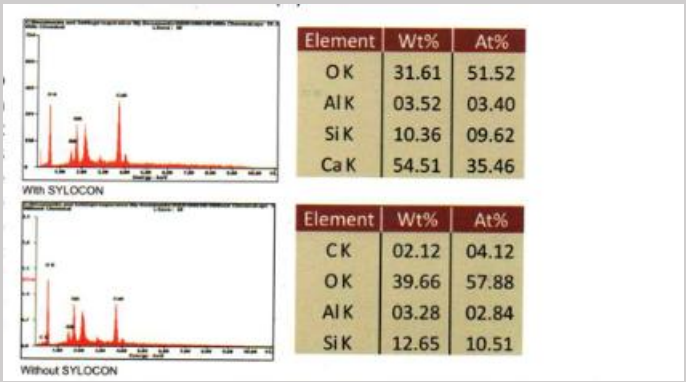
Application Methodology (Brick Wall Plastering)

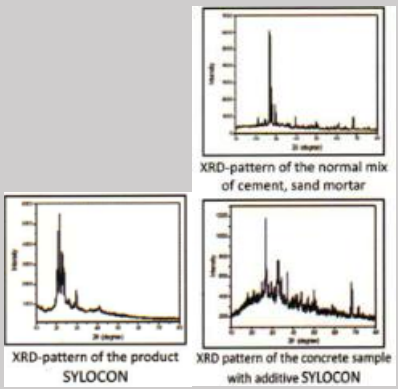
Note: Stir SYLOCON® well before use.

1. **Dry Mix:** Homogeneously mix dry cement and sand.
2. **Add SYLOCON® & Water:** Add water and SYLOCON® (1 liter per 50 kg bag of cement) to the dry mix to prepare a uniform mortar.
3. **Surface Prep:** Wet the brick surface using a prepared cement slurry prior to plastering.

4. **Application:** Apply using traditional plastering methods.
5. **Curing:** Begin water curing after 24 hours.

Technical & Microanalysis Summary

Test Method	Key Findings
Elemental Microanalysis	Confirms no foreign carbon intrusion and unchanged basic concrete chemistry; elemental percentages shift slightly due to beneficial crystal formation. 
SEM Imaging	Reveals dense crystal growth inside mortar pores and capillaries compared to untreated porous mortar. 
X-Ray Diffraction (XRD)	Shows distinct hydration patterns indicating nano-particle formation that strengthens the cement-aggregate bond.



Safety & Handling (MSDS Summary)

- **Physical Appearance:** Grey viscous liquid
- **Hazardous Ingredients:** Nil (Non-toxic, no adverse health effects, non-flammable)
- **Reactivity:** Reacts strictly with pozzolanic materials
- **Preventive Measures:** Standard handling applies. Protective gloves and safety glasses are recommended. In case of eye contact, rinse thoroughly with fresh water and seek medical advice if irritation persists.

Contact & Manufacturing Information

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