

CEMEK-RSET80L

Product Technical Data Sheet

Alkali Free liquid accelerator for sprayed concrete for shot creating

Description

CEMEK-RSET80L is an alkali free set accelerator available in liquid form for use with sprayed concrete for guniting, shot creating etc.

Standards

Conforms to IS 9103-1999 (reaffirmed 2004) Edition 2.2 (2007- 2008), ASTM C494/C494-08a, Type C, BS EN 934 Efnarc specification of sprayed concrete & ASTM C 1141

Uses

CEMEK-RSET80L is used for sprayed concrete and mortar in galleries, tunnels, retaining walls, embankments, tank lining etc. Cement mortar admixed with **CEMEK-RSET80L** sets rapidly; hence faster placing of higher thickness in one application is possible.

Advantages

Following points are beneficial with **substantial low dosages** in comparison with silicate based.

- 1) Alkali free so does not promote Alkali Silica Reaction in concrete & hence produces **sound concrete**.
- 2) Proper spraying consistency of the concrete when mixed & quick setting enables to stick the concrete in substrate adequately resulting no or minimum **rebound loss & hence economic**.
- 3) Rapid setting leads to higher builds spray (more than 100 mm thickness) at a time, contributes faster coverage & hence **more economic**
- 4) Quick setting ensures spraying on wet surface even with running water & contributes **water tightness instantly**.
- 5) Formulated in such a way that develops **high early strength & later strength** is not adversely affected obviously with prescribed dosages.
- 6) Chloride free & does not promote **corrosion of reinforcing steel if any**.

- 7) Non caustic leads to safer handling to workmen & **maintains safety** to the operating condition in workplace.

Properties

S. No.	Properties	Observations
1.	Form	Liquid
2.	Colour	Brown/Light Yellow
3.	Specific Gravity (27±2°C)	1.35±0.03
4.	Chloride Content	Nil (as per EN 934)
5.	Air Content	Nil

Application

A good pumpable mix design with minimum slump is required to minimize the dosage of accelerator. The required quantity of accelerator is directly added to the concrete at the time of shotcreting. Accelerator dosage can be optimized by adjusting the air pressure, spraying distance from the tip of the nozzle, skills & operating techniques of the operator to a minimum rebound loss with higher build.

Dosage

Typical Dosage should be in between 4 – 7% by weight of cementitious material depending upon the site requirement and ambient temperature. In general guideline, maximum dosage up to 8% is permissible. Dosage beyond this limit may also be used to suit the actual requirement of the site condition provided that it should not affect the later strength of concrete adversely. An overdose of accelerator may result in quick setting of the mix before it reaches the surface to be sprayed which may results huge rebound loss & It may also result in a loss of strength of the concrete adequately those stick with the substrate. So proper dosage to be optimized to meet the site requirement by site trials with materials available & ambient condition. It must be stirred well before use to avoid any kind of settlement at the bottom of accelerator tank.

Consistency

CEMEK-RSET80L is formulated with selective alkali free ingredients and is manufactured under controlled conditions to give a consistent product.

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Handling

CEMEK-RSET80L is formulated from chemicals which has no fire or health hazard.

Storage

If stored in undamaged sealed containers in dry condition at normal ambient temperatures, a shelf – life of 04 months can be expected.

Compatibility

CEMEK-RSET80L is compatible with other CIPL & Other admixture in same concrete mix. All admixtures should be added to the concrete separately. It is suitable to all types of OPC cement and cement replacement material such as PFA, GGBFS and Silica Fumes.

Rate of addition.

The optimum dosage should be determined by site trials. As a guide, the rate of addition is done in the range of: -

Dosages of CEMEK-RSET80L	Setting Time @ (27±2°C, 65% RH)		
	Initial Time (Min)	Setting Time (Min)	Final Setting Time (Min)
5%	2:55		11:50
6%	2:35		09:35
7%	2:10		07:15

Packing

CEMEK-RSET80L is available in 50 Kg & 250 Kg drum.

Information

Although the basic formulation of our products generally remains unchanged production refinements arising from continuing research and evolution program may occasionally results in marginal changes in properties.

Warranty

Our products are manufactured under stringent National / International quality norms and guaranteed against any manufacturing defect. Recommendation as per this data sheet are based on our team's combined practical experience and exposure over

several years in the field of construction and are believed to be most appropriate. However, no liability can be accepted by us, as the conditions of use of such products are beyond our control.

Disclaimer

The above data is based on our industry knowledge and does not constitute a guarantee for any specific product. A legally valid contractual relationship, can therefore, not be established.

FIRST AID!

- ❖ Eyes and skin: Flush eyes with water for 15 minutes. Contact a physician if irritation persists.
- ❖ Wash skin thoroughly with soap and water. Remove and wash contaminated clothing before reuse. Inhalation: Remove subject to fresh air. Swallowing: Dilute by giving water to drink and contact a physician promptly.
- ❖ Never give anything to drink to an unconscious person.

Note: - keep out of reach of children for professional and industrial use only

Products Range of CEMEK

- ❖ Alkali Free Accelerator for wet Shotcrete in Liquid form
- ❖ Alkali Free Accelerator for Dry Shotcrete in powder form.
- ❖ Modified Sodium Silicate based accelerator for Shotcrete.
- ❖ Integral Water Proofing Compound.
- ❖ Crystalline Water Proofing Compound.
- ❖ Heat Resistance Coatings/Paints with application
- ❖ Cement, Micro Fine Cement, Epoxy, PU and Colloidal Silica based grouts with application.
- ❖ Wax Based, Resin Based and Resin Based Aluminized Concrete Curing Compound.
- ❖ Ready to use High Strength, Rapid Set, Non-Shrink, Self-Levelling, Crack Repair, Heavy Duty Machine Installation product.

Services

Ref.: - CEMEK/AF/18/001
 Rev.: -CEMEK/LAF/20/002

Date: -01/01/2018
 Date: 29/04/2020

CEMEK (I) PRIVATE LIMITED

(An ISO 9001:2015 Certified Company)

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"Comprehensive Solution for Constructions"

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- ❖ Water Proofing (Epoxy, PU, Acrylic, SBR etc.)
- ❖ Dry & Wet Shotcrete
- ❖ Crack Repairing
- ❖ PU, Epoxy, Polyester Grouting (Tunneling & Mining & Structures)

House, Industrial & Institutional Cleaners

- ❖ Floor & Bathroom Cleaners
- ❖ Toilet Cleaner
- ❖ Steelness Steel Cleaner
- ❖ Degrease & Oil Removers
- ❖ Paint & Coating Striping Agents
- ❖ Concrete Removing Agents
- ❖ Hand Wash
- ❖ Glass Cleaners
- ❖ Tar Removing form car body
- ❖ Rust Removing Agent
- ❖ Rust Converter



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