

SURFACE-R

Concrete Surface Retarder

Surface-R is a chemical formulation which retards, but does not 'kill' the set of the mortar at the surface of the concrete. It contains organic agents which react with the calcium, magnesium and aluminate ions of the cement to slow the curing cycle and thus allow surface mortar to remain workable for a longer time. It is used to create exposed aggregate surfaces architecturally, and to roughen the concrete surface at horizontal joints to improve bonding of the concrete.

Surface-R is available in 2 grades:

- **Surface-R S** : Surface grade, for application of fresh, horizontal concrete surfaces
- **Surface-R F** : formwork grade, for direct application on forms

ADVANTAGES

- Safe to use and easy to apply
- Works quickly and effectively
- Provides up to 7 mm depth retardation
- Reduces cost for preparing the surface for waterproofing, stucco or plaster application
- Eliminates need for sandblasting

USES

Concrete Surface Retarders are used to create exposed aggregate surfaces on precast panels or slabs for architectural beauty, to roughen concrete walls for improved bonding of waterproofing or plastering and to expose walkways, curbs and roadway surfaces for both architectural and slip resistant purposes.

PROPERTIES (Typical Results)

	Depth of Penetration
Surface-R S	5 mm
Surface-R F	7 mm

DIRECTIONS FOR USE (Surface-R F)

Surface Preparation

- Forms to be coated should be dry, clean and free of oil and dirt.
- **Surface-R** should be applied on forms without thinning, in a continuous film.
- Forms should be nonporous.

Application

- Stir well before use. Do not thin down water or solvent.
- Apply in two thin even coats with a brush or roller at a rate of approximately 4m²/ltr. The second coat has dried (usually about 30 minutes later).
- If the coated form surface is exposed to wet conditions prior to use, the form must be cleaned and then recoated with the retarder.

- Place concrete as soon as the retarder dries.
- In warm weather, forms may be stripped in one day. In cooler weather allow two to three days before stripping.
- Immediately after stripping remove the retarded surface mortar by flushing off with a jet of water and/ or scrubbing with a stiff brush.
- Precast structural members should be stripped from their forms in their usual time and the surface mortar removed.

DIRECTIONS FOR USE (Surface-R S)

- Apply **Surface-R S** to freshly placed horizontal concrete surfaces or horizontal joints immediately after final finishing operations.
- It should be applied preferably by low pressure spray without thinning in a continuous unbroken film. The treated surfaces are then covered to prevent too rapid evaporation.
- The retarded mortar should be flushed off with water in 12 – 24 hours after application depending upon weather conditions.

COVERAGE

Surface-R S	5 m ² /litre
Surface-R F	4 m ² /litre

PRECAUTIONS

- Avoid eye contact and unnecessary skin contact.
- Gloves and goggles should be worn.
- Wash thoroughly after handling.
- In case of eye contact, flush with plenty of clean water. Seek medical help immediately.
- Do not expose to naked flame.

PACKAGING AND STORAGE

Surface-R is supplied in 20 litre can and 205 litre drum. If stored in a cool and dry place, the shelf life is about 6 months.

TECHNICAL SERVICE

The company provides good servicing from a team of dedicated specialists in the field. When used in accordance with its current published directions, the product will perform as described in this catalogue. Millennium Concrete Technologies will not be responsible for difficulties caused by other materials, conditions or inferior workmanship. We reserve the right to determine the true cause of any difficulty by accepted test methods.

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