**CONCRETE SURFACE RETARDERS**

FOR EXPOSED AGGREGATE SURFACES

CONCRETE SURFACE RETARDERS are chemical formulations which retard, but do not "kill" the set of the mortar at the surface of concrete. When the underlying concrete has hardened, the retarded mortar surface can be flushed off with a stream of water and/or removed by scrubbing with a stiff brush. Since these compounds do not “kill” the set, if they are left on the concrete or unintentionally splashed on other fresh concrete, they will permit the concrete to eventually attain a set and achieve full strength. CONCRETE SURFACE RETARDERS are available in two formulations to meet varying job requirements:

- **Formula F** is a paint-like emulsion designed for application directly to forms.
- **Formula S** is a neutral, sprayable liquid for application to freshly placed horizontal concrete surfaces.

**PRIMARY APPLICATIONS**

- Creation of exposed aggregate surfaces
- Precast panels
- Decorative sidewalks and walkways
- Bond improvement for water-proofing materials
- Slip-resistant surfaces
- Formulations for both horizontal and vertical applications

**FEATURES/BENEFITS**

- Safe to use - easy to apply.
- Works quickly and effectively.
- Provides up to 1/4" (6 mm) depth retardation.
- Reduces cost of preparing surfaces for waterproofing, stucco or plaster application. Eliminates need for sandblasting.

**PACKAGING**

CONCRETE SURFACE RETARDERS are packaged in 55 gal (208 liter) drums and 5 gal (18.9 liter) pails.

**TECHNICAL INFORMATION**

CONCRETE SURFACE RETARDERS are liquid admixture chemicals which delay the hydration process of cement. They contain organic agents which react with the calcium, magnesium and aluminates of the cement to slow the curing cycle and thus allow the surface mortar to remain workable for a longer time.

**Shelf Life:** 2 years in original, unopened container.

**Appearance**

CONCRETE SURFACE RETARDER Formula 'F' is a thick paint-like emulsion for application on vertical surfaces. CONCRETE SURFACE RETARDER Formula 'S' is a low viscosity liquid for application on horizontal surfaces.

**COVERAGE**

- **Formula 'F'** - 1 gal will cover 150 ft² (3.7 m²/liter) and provide up to 1/4" (6 mm) depth.
- **Formula 'S'** - 1 gal will cover 100-200 ft² (2.5-4.9 m²/liter) and provide from 1/8"-3/16" (3-5 mm) depth retardation.

**DIRECTIONS FOR USE**

**Surface Preparation**

Forms to be coated should be clean and free of oil, dirt and form release agents.

**Mixing**

CONCRETE SURFACE RETARDERS do not require pre-blending. These products should be used directly from the container.
WARRANTY:
The Euclid Chemical Company ("Euclid") solely and expressly warrants that its products shall be free from defects in materials and workmanship for six (6) months from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. Euclid makes no warranties, implied or otherwise, as to the merchantability or fitness for ordinary or particular purposes of its products and excludes the same. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and Buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid’s installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid’s products for the Buyer’s intended purposes.

Placement:
CONCRETE SURFACE RETARDER Formula ‘F’ should be painted on forms without thinning, in a continuous unbroken film. Forms may be coated several days in advance or in as short a time as will allow complete drying of the film. Drying time varies between one and four hours depending on weather conditions. In warm weather, forms may be stripped in one day, in cooler weather allow two to three days. Immediately after stripping remove the retarded surface mortar by flushing off with a stream of water and/or remove by scrubbing with a stiff brush. Pre-cast structural members should be stripped from their forms in their usual time and the surface mortar then removed.

Formula S for horizontal surfaces:
CONCRETE SURFACE RETARDER Formula ‘S’ is applied to freshly placed horizontal concrete surfaces immediately after final finishing operations. It should be applied by low pressure spray and the treated surfaces then covered to prevent rapid evaporation. The retarded mortar should be flushed off with water in 12 to 24 hours after application depending upon weather conditions.

CLEAN-UP
Clean tools and equipment with soap and water before the material dries.

PRECAUTIONS / LIMITATIONS
• These products are affected by environmental conditions. Warmer temperatures will allow earlier stripping of forms and earlier surface flushing, while cooler temperatures delay these procedures.
• Store in a dry place and protect from freezing.