

## Basic Description

SILICOTE SPEC. is a ready- to use, water borne combination of silicates, neutralizers and penetrating agents specially compounded to meet CRD C 204-66 (Corps of Engineers) for hardening and sealing freshly poured concrete surfaces. SILICOTE SPEC. is available with or without a red fugitive dye.

Features:

- Meets Corps of Engineers and Federal job specifications.
- Seals, hardens & dustproofs in one easy operation
- Forms a wear resistant surface.
- Penetrates & reacts with the concrete- not just as a surface coating but as an integral part of the concrete.
- Ready to use.
- May be applied with a brush, or by hand or power sprayer.
- Permanent.
- Non toxic.
- Cures the concrete surface.
- Seals in moisture for full development of the concrete cure.
- Potable water cure.
- 0 grams/litre V.O.C.

## Uses

SILICOTE SPEC. seals, hardens and dustproofs concrete floors. SILICOTE SPEC. chemically reacts with the lime and other soluble calcium compounds in Portland Cement to form an insoluble gel which fills the pores of the concrete which then resists oil, grease and a variety of staining substances, mild acids & alkalies, fruit sugars, soaps and detergents.

SILICOTE SPEC. improves wear resistance providing a flame retardant, non-toxic surface. Concrete floors treated with SILICOTE SPEC. are easier to clean and keep clean. SILICOTE SPEC. may similarly be used on walls, beams and columns. SILICOTE SPEC. is formulated as an environmentally safe cure forming an insoluble gel which fills the pores of fresh cement sealing in the mixing water thus ensuring the availability of sufficient water to hydrate the portland cement for the full development of compressive and tensile strength of the concrete. SILICOTE SPEC. is suitable for curing concrete reservoirs that will ultimately contain potable water.

## Hardening Qualities

Silicote Spec. hardens concrete and achieves an increase in compressive strength of in excess of 35% over untreated samples after 28 days of curing (ASTM C 42). Impact resistance is also improved by up to 13% (ASTM C 805).

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**Limitations**

SILICOTE SPEC. should be spread evenly over the concrete surface so that pools do not accumulate, resulting in slippery and/or white patches on the finished surface. Do not allow product to remain on surface.

Adjacent surfaces should be protected from overspray. Where overspray occurs, surface should be washed with water within one hour.

SILICOTE SPEC. chemically bonds to, penetrates and seals concrete surfaces. However after fully curing most coatings will mechanically bond to this surface.

- SILICOTE SPEC. should not be used when the temperature is less than 7° C (45°F)
  - SILICOTE SPEC. must not be applied to frozen surfaces.
  - SILICOTE SPEC. must be kept from freezing.
- SILICOTE SPEC. treated, smooth trowelled, cured concrete surfaces may be slippery when wet.

**Warranty**

Insulmastic strives to manufacture the highest quality products using selected raw materials, manufacturing methods and testing procedures. All products are warranted to be of uniform quality within manufacturing tolerance. Since no control is exercised over the end use of the product, no warranty, expressed or implied is made to the effects of such use. Seller's and Manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective.

**Properties of Material**

Appearance	Clear liquid
Flammability	Non-flammable
Viscosity	Low
PH	Over 10 (Alkali)
Density	1.13 Kg/L (11.3 lb/gal or 9.42 lb/US gal)
Specific gravity	1.13
Toxicity	Non toxic
Storage limitation	Freezable
V.O.C.	0 grams / litre

**First Aid**

If SILICOTE SPEC. is spilled on skin, wash thoroughly with soap and water. If splashed in eyes, flush with cool water. Call a physician immediately. If swallowed, call a physician immediately.

**Installation**Fresh Concrete

1. Complete the finishing operations apply when surface is not marked by walking, and when there is no standing surface water present, apply SILICOTE SPEC. according to instructions.
2. Apply while concrete surface is still damp but surface water has disappeared.
3. Apply by hand or power sprayer at specified application rates.
4. Using a stiff bristled push broom or straw broom, work the material into the porous surface.  
**\*Do not allow material to puddle, or remain on surface after 30 minutes**
5. Allow 24 hours drying time before placing in service.

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Cured and Old Concrete

1. Remove all loose material, grease, oil, dust or chemical contaminants from surfaces to be treated with SILICOTE SPEC. To remove grease and oil, use PAVECLEAN. A dirty or spotted floor will result in an uneven sheen and poorly protected surface. Surface should be dry.
2. Stir product thoroughly before use.
3. Dilute SILICOTE SPEC. 1 part to 1 part water. This gives a deeper chemical reaction rather than a surface build up. Apply the mixture to surface with a low pressure hand or power sprayer.
4. On small areas, application may be by sprinkler.
5. Using a broom or stiff bristled push brush; distribute evenly and uniformly over the surface at the recommended coverage rate taking care to eliminate puddles.  
 \* **Use a squeegee to remove any material that has not penetrated after 30 minutes**
6. Protect drying film from dust, rain, condensation and traffic until dry.
7. Spray or sprinkle second coat of SILICOTE SPEC. (full strength) onto surface and distribute as before with a broom, taking care to eliminate puddles, remove any product remaining on surface after 15-30 minutes with a squeegee.
8. Protect drying film from dust, rain, condensation and traffic until dry. Allow 24 hours drying time

<b>Rate of Application</b>			
Profile of Surface	M <sup>2</sup> per L	Ft <sup>2</sup> /per gallon	Ft <sup>2</sup> per US Gal
Smooth	6 - 11	300-550	250 - 450
Rough	2.5-7	100-300	100 - 285

<b>Clean Up</b>
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Clean tools and equipment with water before SILICOTE dries. Clean hands and skin with soap and water.

If white areas develop on surface, and caught early immediately flush with warm water, and scrub with stiff brush or broom.

If allowed to cure on surface mechanical removal will be required. The use of an auto scrubber, or polishing/grinding unit with a stripping pad installed will be required.

<b>Maintenance</b>
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SILICOTE surfaces require no special care. The use of SILICOTE reduces the care required and extends service life.