



TECHNICAL DATA SHEET

HORN HARDENER

Water Based Hardening / Dust Proofing / Curing Compound

03920

CONCRETE RESURFACING
CONCRETE

TAMMS INDUSTRIES
JANUARY 2001 (Replaces 1/00)

- DESCRIPTION:** HORN HARDENER is a VOC compliant, (complies with AIM federal VOC regulations) clear, water soluble product for treating concrete. In addition to working as a curing agent for freshly placed concrete, HORN HARDENER penetrates the concrete surface pores and reacts chemically with the lime and other soluble calcium compounds in the portland cement. The result is a hard, dust proof, easy to clean surface.
- USES:** HORN HARDENER is effective on concrete surfaces, interior or exterior, horizontal or vertical. HORN HARDENER is ideal for use when secondary treatments such as HORNOLITH are to be applied to the surface. HORN HARDENER contains no wax, oil or paraffins that would reduce the performance of coatings, toppings or adhesives for tile or carpet. Advantages of using HORN HARDENER include:
 - Hardens, dust proofs and cures
 - Water Based material is VOC compliant, odorless and non flammable
 - Clean up with water
 - Effective on interior or exterior concrete
- COMPOSITION OF MATERIALS:** HORN HARDENER is a clear, inorganic, sodium silicate water soluble compound. It is VOC compliant and designed to meet and exceed Corp of Engineers CE-204 and Federal Job Specifications for the chemical hardening of concrete surfaces.
- SURFACE PREPARATION: Freshly Placed Concrete:** Horizontal surface must be finished and may be damp, but not wet. The surface must be able to withstand walking workmen. Vertical surfaces may be treated as soon as the forms have been removed and the surface rubbed. **Existing Concrete:** Surface must be structurally sound, free of dust, dirt, laitance, efflorescence, curing or parting compounds, paint, and other contaminants. Prior to application, surface defects, voids, joints or cracks must be properly sealed or filled.
- MIXING INSTRUCTIONS:** HORN HARDENER is supplied ready to use and normally requires no mixing.

- APPLICATION TECHNIQUES:** Apply HORN HARDENER with a boom or garden type airless sprayer, short napped mohair roller, paint brush or soft bristled broom. To cure fresh concrete, apply a full even coat of HORN HARDENER to the point of saturation. Use a lambs wool applicator or roller to pick up puddles of excess material. To seal a concrete surface, apply two coats of HORN HARDENER. The second coat should be applied as soon as the first coat has dried. HORN HARDENER can accommodate foot traffic in four hours. Maximum surface hardness will be achieved in one week.

- COVERAGE:** The following coverage rates are approximate and for estimating purposes only. Make test applications on actual surfaces to more accurately determine exact coverage rates.

	Sq.Ft./Gal per coat
Fresh Concrete	400-600
Existing Concrete	200-400

- CLEAN-UP INSTRUCTIONS:** Clean tools or equipment with detergent and water immediately following use. Clean glass and other non absorbent materials within 1 hour of application. If HORN HARDENER is accidentally splashed on unintended surfaces flush away immediately with water.
- CAUTIONS:** Do not thin or dilute HORN HARDENER. Do not apply when the air or surface temperature is below 32°F (0°C). Do not use HORN HARDENER on white or colored concrete. Trial applications are recommended.
- ENVIRONMENTAL AND SAFETY PRECAUTIONS: Industrial Use Only.** Wear goggles, protective clothing, gloves. Irritating to eyes and skin. Avoid splashing into eyes and prolonged contact with the skin. In case of eye contact, flood eyes repeatedly with clean water and call a physician immediately. **DO NOT RUB EYES.** Wash hands with soap and water immediately after use, and before smoking or eating. If ingested, do not induce vomiting and call a physician immediately. **KEEP AWAY FROM CHILDREN AND ANIMALS.**

TAMMS INDUSTRIES
JANUARY 2001 (Replaces 1/00)

CONCRETE RESURFACING
CONCRETE

03920

Protect shrubbery, plants, grass or overspray during application. Consult Material Safety Data Sheet for complete product safety information prior to application. EMERGENCY RESPONSE PHONE NUMBER: (800) 862-2667 TAMMS OR (800) 424-9300 CHEM-TREC.

11. PACKAGING: HORN HARDENER is available in 5 gallon pails and 55 gallon drums.

Storage: Dry, ventilated, 40-90°F (4-32°C).

Shelf Life: 1 year in properly stored.

Freight Class: Class 55 - NOT RED LABEL.

12. TECHNICAL SERVICE: For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES
3835 State Route 72, Kirkland, IL 60146
800-862-2667 FAX: 815-522-2323
www.tamms.com

WARRANTIES: Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products' specifications. THE FOREGOING WARRANTIES, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. LIMITATION ON LIABILITIES: Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury. Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**