

# SPECPLATE Hardener

Metallic dry-shake floor hardener

## DESCRIPTION

SPECPLATE HARDENER is a well graded blend of metallic aggregates, plasticizer and cement binder. It provides maximum abrasion-resistance to interior concrete floors. When incorporated into fresh concrete slabs, SPECPLATE HARDENER will provide a surface which is highly resistant to abrasion, impact and point loading even in areas subject to frequent moisture and water exposure.

SPECPLATE HARDENER, mixed as a mortar, is also used to construct iron armored joints. SPECPLATE HARDENER is available in a natural concrete color.

## FEATURES/BENEFITS

- Provides a high strength wearing surface
- Increases impact and abrasion resistance up to eight times that of plain concrete
- Provides a high density surface that resists liquid penetration and is easy to clean and maintain
- Resistant to surface dusting, spalling, and deterioration due to abrasion.

## SPECIFICATIONS/COMPLIANCES

U.S.D.A. accepted for use in facilities where incidental contact with food product is possible.  
Compliant with American Concrete Institute Standards: ACI 302, ACI 305, ACI 306

## APPLICATION

**Coverage:** 1.5 to 2.5 lbs per sq. ft.

As a general guide to floor and slab construction, refer to American Concrete Institute Standard 302.

All work should be done under roof if at all possible. Job conditions that affect drying/setting time also affect the hardener application time. Use experienced workers for the job size. For most applications, a mechanical spreader that drops the dry shake directly onto the fresh concrete is recommended. **Concrete mix design must be reviewed and approved by SpecChem prior to placement.**

**Preparation:** Calculate the number of bags required for a given area as per the coverage rate required. Place concrete to finish grade level and compact with a wooden bull float.

**Special Conditions:** When slab is subjected to any condition that causes rapid surface drying such as low humidity, wind, sunlight, etc., spray SpecFilm onto surface just after bull floating.

## APPLICATION

**Placing:** Application of the hardener depends on: slump of concrete, job site conditions affecting drying, and the coverage of the hardener. Perimeter sets quicker than interior. Be aware of this and apply to edges first.

Dry-shake surface hardeners are designed to be placed after bleeding. After concrete has been screeded, tamped and floated, apply  $\frac{2}{3}$  of coverage ratio on first application. Allow the dry-shake to darken, absorbing the moisture from the slab, then wood bull float or machine at the appropriate time. Immediately follow with the remaining  $\frac{1}{3}$  and machine float. Final finish after the slab stiffens.

To achieve maximum appearance and performance, float and finish the dry-shake so as to maintain the material on the top surface of the slab, fully integrated into the base concrete.

Edges should be worked by hand, keeping trowel as flat as possible. Blistering can occur when trowel blades have been raised too early. Re-trowel with blades lowered to remove blisters.

DO NOT ADD WATER to aid in finishing. This will weaken the surface. A hard troweled surface is recommended.

**Curing:** Apply an approved SpecChem ASTM C-309 compliant curing compound after final troweling.

## PACKAGING

50 lb triple lined bag (22.7 kg)

## TECHNICAL DATA

### Compressive Strength (ASTM C 109)

7 days  
28 days

### SpecPlate Hardener (mixed at 9.5% water)

9,750 psi  
12,500 psi

## SHELF LIFE

Shelf life of unopened bags stored in a dry facility is 12 months. Excessive temperature differential and/or high humidity can shorten the shelf life expectancy. Store in a cool, dry area away from direct sunlight.

**SPEC**CHEM   
Solution to Service

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## LIMITATIONS/PRECAUTIONS

- DO NOT place at temperatures below 40°F (5°C) or if the temperature is expected to fall below 40°F (5°C) in the next 24 hour period.
- DO NOT use dry-shake hardeners where floor will be exposed to any material known to attack Portland cement, such as acid.
- Slump should not exceed 4" (10.16 cm)
- DO NOT use any air entrainment. Total air in concrete mix should not exceed 3%.
- DO NOT use calcium chloride or aggregates contaminated by salt water.

**Caution:** Contains Portland cement and sand. Cement will cause irritation. Avoid contact. A dust respirator, safety goggles, and rubber gloves are recommended. Avoid prolonged contact with clothing. In case of contact with eyes, immediately flush with water for at least 15 minutes. Get prompt medical attention. Do not wear contact lenses when working with this product. DO NOT take internally. Keep out of reach of children.

Avoid hazards by following all precautions found in the Safety Data Sheet (SDS), on product labels and in technical literature. Please read this information prior to using the product.

## WARRANTY

### NOTICE-READ CAREFULLY CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

### WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

### INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.



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