TECHNICAL DATA SHEET

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 that 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.

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

COMPLIANCE/STANDARDS

- USDA accepted for use in facilities where incidental contact with food products is possible
- Compliant with American Concrete Institute standards ACI 302, ACI 305 and ACI 306

APPLICATION

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. The concrete mix design must be reviewed and approved by SpecChem prior to placement.

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

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

Placing: Application of the hardener depends on the slump of the concrete, jobsite conditions affecting drying and the coverage of the hardener. The perimeter sets more quickly than the interior; be aware of this and apply to the edges first.

Dry-shake surface hardeners are designed to be placed after bleeding. After the concrete has been screeded, tamped and floated, apply 2/3 of the coverage rate in the first application. Allow the dry-shake to darken, absorbing moisture from the slab, then wood bull float or machine float at the appropriate time. Immediately follow with the remaining 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 the trowel as flat as possible. Blistering can occur when trowel blades have been raised too early. Re-trowel with blades lowered to remove blisters.

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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 C309-compliant curing compound after final troweling.

COVERAGE

Application	lb/sq ft	kg/m²
Dry-shake hardener	1.5–2.5	7.3–12.2

TECHNICAL DATA INFORMATION

Compressive Strength (ASTM C109, mixed at 9.5% water)

7 days.....9,750 psi

28 days..... 12,500 psi

PACKAGING

50 lb (22.7 kg) triple-lined bag

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.

LIMITATIONS

- 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 the 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 the concrete mix should not exceed 3%.
- DO NOT use calcium chloride or aggregates contaminated by salt water.

PRECAUTIONS

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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