

Conspec Emery Topping

Description

Conspec Emery Topping is designed to provide an extremely hard, dense and abrasion resistant floor for heavy duty applications. Concrete floors protected by Conspec Emery Topping will be very resistant to dusting, spalling, deterioration and surface abrasion. Surfaces protected by Conspec Emery Topping will also be more resistant to water absorption, chemicals and deicing salts thus reducing cleaning and maintenance costs.

Manufacturer

Conspec
4226 Kansas Avenue
Kansas City, Kansas 66106
Customer Service (800) 348-7351
Technical Service (877) CONSPEC

Description

Conspec Emery Topping is a ready-to-use floor topping comprised of a blend of 100% pure emery corundum, special additives and portland cement. Emery is a naturally mined material that is extremely hard, tough and abrasion resistant. In fact, our emery is so hard and tough that on the Moh's Hardness Scale, with diamond rating as a 10, our emery is rated as an 9-8. As a result, proper installation of Conspec Emery Topping will impart very long life and extremely high durability to concrete floors and surfaces.

Conspec Emery Topping is completely non-corrosive and rust-free and thus it can be used either indoor or out. Conspec Emery Topping offers a superior alternative to metallic floor toppings because it is rust-free and it will provide a harder, denser and more abrasion resistant floor.

Conspec Emery Topping is available in a natural concrete color or in the following colors: battleship grey, french grey, tan, terra cotta, tile red, black, brown, green and light reflective.

Purpose

Applications for Conspec Emery Topping include: industrial plants, water transfer stations, foundries, car, truck and tractor assembly plants, loading docks, smelters, warehouses, service garages, processing plants, generating stations, sewage and water treatment plants, resource recovery plants, paper mills, etc.

Advantages

- Dramatically Increases the Life of a Concrete Floor – Up to 10 Times the Wear of Concrete

- EM Topping is One of the Hardest/ Most Durable Materials Known to Man
- Moh Hardness Scale:
Diamond – 10 Rating
Emery – 9-8 Rating
- Non-Rusting/Can be Used in a Wet Environment (Typical Metallic Toppings Cannot be Used in a Wet Environment)
- Superior in Wear and Abrasion Resistance to Metallic Toppings
- Easy to Apply/Less Labor Intensive Than Metallic Toppings
- Resists Moisture Penetration/Easier to Clean
- Greater Volume of Material Per Pound of Emery vs. Metallic
- Resistant to Dusting, Spalling and Deterioration
- Interior/Exterior Applications
- Greater Chemical Resistance Versus Metallic Toppings

Specifications

100% pure emery/corundum consisting of a minimum of 50% aluminum oxide, a minimum of 24% iron oxide and no more than 8% silica

Moh Hardness – 9-8 (Diamond is a 10)

Specific Gravity – 3.7 (Emery only)

For Heavy Duty Service for Class 5, 6, 7, and 8 Industrial Floors
(ACI Manual of Concrete Practices 302)

Compressive Strength – ASTM C-109 2" cubes (5 cm)
14,000 psi (96.5 MPa) in 28 days

Abrasion Test – ASTM C-944 “Standard Test Method for
Abrasion Resistance of Concrete or Mortar” Test performed with
a doubling of the applied
Load and with doubling the time of abrasion.
Average weight loss in grams - .4

Application Instructions

The ACI manuals of Concrete Practice are to be followed:

ACI 302 for measuring, mixing, transporting and placing concrete. (Guide for Concrete Floor and Slab Construction).

ACI 305 for hot weather concreting
ACI 306 for cold weather concreting

Floor Preparation:

Base slab should have a rough finish. On fresh concrete, rake the surface with a flexible steel leaf rake or use a grooved roller. On an older concrete base, use air hammers or a scarifier. Then thoroughly clean the surface removing all loose concrete, dirt, grease and any curing compounds. Saturate with water for 12 hours prior to placing the Conspec Emery Topping. A slurry coat of cement and water (with a consistency of heavy cream) should be brushed onto the base slab immediately prior to placing the Conspec Emery Topping. Conspec's epoxy bonding agent Spec Bond 100 or Conspec 100 Non-Shrink, Non-Metallic Grout may be used in lieu of the slurry coat.

Installation:

Mix Conspec Emery Topping at the rate of 3.3 quarts of water per 75 lb. bag (3.1 liters/34 kg bag). Add the Conspec Emery Topping into the mixing container first and then add the water. The product can be mixed in a mortar mixer with blades that do not touch the side walls. Continue mixing until the material is free of lumps, approximately 3-5 minutes. The Conspec Emery Topping should have approximately a 2" to 3" slump (5 to 7.6 cm). Evenly spread the Conspec Emery Topping onto the base slab at a minimum depth of 3/4" (1.9 cm) after the base slab has reached its initial set. Immediately screed the Conspec Emery Topping. Then trowel to desired finish.

Curing:

Immediately apply two coats of Cure & Seal VOC from Conspec at a coverage

rate of 200 to 300 sq. ft. per gallon (4.9 – 7.4 m²/liter) or utilize a wet burlap plastic cure for a minimum of seven days.

Approximate Coverage

12 lbs./sq. ft. at 3/4" thickness
(58.6 kg/m² at 1.9 cm)

16 lbs./sq. ft. at 1" thickness
(78.1 kg/m² at 2.5 cm)

Packaging

75 lb.(34 kg) multi-wall, plastic lined bags

Clean Up

Use clean water.

Limitations/Precautions

Install only when the ambient temperature is between 40 and 90F° (4 to 32C°). Do not add other cements or additives to Conspec Emery Topping without approval from Conspec.

Store in a cool, dry area that is free from moisture.

Avoid direct contact with skin and eyes. Product contains portland cement. Wash exposed skin area promptly with water. May cause skin irritation and possible cement burns. In case of eye contact, flood eyes repeatedly with water and call a physician. Do not take internally. Harmful if ingested. Keep product out of reach of children. Refer to Material Safety Data Sheet for additional information.

Warranty

Conspec warrants, for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Conspec, the product is free of manufacturing defects and conforms to Conspec's published specifications in force on the date of acceptance by Conspec of the order. Conspec shall only be liable under this warranty if the material has been applied, used, and stored in accordance with

Conspec's instructions in this technical data sheet. The purchaser must examine the product when received and promptly notify Conspec in writing of any non-conformity before the product is used, or no later than 30 days after such non-conformity is first discovered. If Conspec, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only an Conspec officer is authorized to modify this warranty. The sales information on the Conspec website and received by the customer during the sales process does not supersede this warranty and the specifications of the product in force on the date of sale. **THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.**

Limitation of Liability

Conspec shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, this Agreement, even if Conspec could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this agreement, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

Technical Services

Complete technical and specification services are available from the manufacturer and their authorized representatives and distributors.

Filing System

Additional literature and the Material Safety Data Sheet can be obtained from Conspec upon request.

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