BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor® MetalTop-200

Metallic Aggregate Dry Shake Surface Hardener

PRODUCT DESCRIPTION

Sikafloor® MetalTop-200 surface hardener is an iron-armored, ready-to-use cementitious dry-shake surface hardener. It utilizes specially treated, sized, and graded metallic aggregate. When evenly distributed and finished over freshly leveled and floated concrete, the aggregate improves wear and impact resistance for industrial concrete floors.

USES

Sikafloor® MetalTop-200 is recommended for treating floor areas subject to heavy traffic and high abrasion where frequent maintenance is not economically feasible and where surface dusting could be a problem. Applications include

- floors of industrial and commercial buildings subject to heavy duty traffic by fork lifts subject to heavy duty traffic by fork lifts,solid wheeled vehicles, etc.
- manufacturing plants
- warehouses and distribution centers
- AGV aisles
- shipping and receiving areas
- Sikafloor® MetalTop-200 is not recommended for areas exposed to chemicals that attack cement

CHARACTERISTICS / ADVANTAGES

- Provides 8 times greater abrasion resistance than typical 4,000 psi concrete
- Can be applied to a newly placed concrete slab for a flat or superflat floor (F_F 25+)
- Smooth to textured finishes provide versatility
- Protects slab surfaces and joint edges by providing greater impact resistance than plain concrete or mineral aggregate dry shake surface hardeners
- Strictly controlled, graded and specially treated iron aggregate provides uniformity and consistent finishing characteristics for ease of application
- Creates a high-density surface that is easy to clean and maintain, resists liquid penetration, and reduces wear on the wheels of material-handling equipment
- Light-reflective formulations reduce energy costs and lighting requirements

PRODUCT INFORMATION

Packaging	55 lb lined paper bags.
Appearance / Color	Powder - gray or off-white (Light-Reflective formula)
Shelf Life	12 months from date of manufacture
Storage Conditions	Store in tightly sealed, original packaging in a dry and enclosed place, between 40°F-90°F.

APPLICATION INFORMATION

Coverage	The rate of application will depend on the service conditions to which the floor will be exposed.The recommended rates of application are 1.0-2.5 lb/ft² .

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Concrete mix designs containing fly ash and other supplemental cementing materials require special consideration. Consult Sika Technical Service for mix design review.
- Do not install over concrete containing calcium chloride or concrete containing aggregate that has been saturated with salt water.
- Do not install over concrete containing more than 3% air content as measured by ASTM C 138, ASTM C 173, or ASTM C 231.
- If any blistering occurs during the finishing operation, flatten trowel blades immediately, refloat to “open” the floor and rework blistered areas with hand floats. Delay raised troweling until no blisters occur.
- Wood or composition-fiber hand floats are recommended for Sikafloor® MetalTop-200 installations.
- Use only high-pH solutions to clean MasterTop 200 floors.
- Do not use in areas where floor surfaces will be routinely exposed to standing water.
- Not recommended for fire-station applications.
- Dry shake surface hardeners give result in a finish with some color variation across the floor due to the natural variability of the concrete onto which they are applied.
- Color variation during curing / drying is normal for dry shake surface hardeners and should be expected.
- Every effort must be made to ensure an even application of Sikafloor® MetalTop-200. Proper application equipment, correct timing and trowelling techniques are essential.
- Arrange to have a pre-job conference with your local Sika representative to discuss all aspects of the dry-shake application. Give a copy of the proposed mix design to your Sika representative. Cement, aggregate size, aggregate gradation, admixtures, and other factors can all affect set time and the ability of the slab to incorporate the dry shake.
- Before starting the application, contractors should install a 100 ft² test application using actual jobsite products and methods for the approval of the owner and architect.
- Protect this product from weather during installation. Place concrete floors under a roof, if at all possible. Job conditions that influence surface drying and setting time of the concrete also affect the timing of the hardener application, the finishing procedures, and the reflectivity of the slab.
- Proper ventilation must be provided. Unvented flue and exhaust gasses from heaters and equipment can cause a carbonated floor surface. This results in a weak and potentially dusting surface.
- Proper timing is essential for successful installation of this product. Follow the given procedures at the recommended time.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

1. Pump, place, or otherwise convey the base concrete at a slump not in excess of 5" for a slab on grade. (Please contact your local Sika representative for special information on suspended slab application.) After the concrete has been placed, immediately screed, then bullfloat or highway straightedge the surface.
2. Do not apply the dry shake into the bleed water. If excessive bleed water is present, remove standing water by dragging a hose across the surface, using a squeegee or other approved method.
3. Early moisture loss and rapid setting around the perimeter of the slab are typical; monitor the slab closely for proper timing of the floating.

APPLICATION

1. Apply and integrate one-half to two-thirds of the total amount on the first application and the remaining portion(s) on the subsequent application(s). Do not apply more than 1.0 lb/ft² in one pass. An automatic spreader is the most efficient, economical, and precise method of applying a dry shake.
2. Allow the first application to absorb moisture, then reprofile the surface of the slab using an 8 – 10 ft wooden bullfloat or wood-laminate modified highway

straightedge perpendicular to the direction on the screeding. A wooden bullfloat is preferable because it tends to open the slab rather than close it off. Closing off the slab can possibly trap water under the dry shake layer. To maintain flatness, avoid shaking the bullfloat handle.
3. Near initial set when the slab can support the weight of a person leaving a 1/8 – 1/4" depression, float the surface with a floating machine equipped with clip-on float blades. Hand float the edges with wood floats or darbies. reprofile in both directions using the modified highway straightedge to achieve desired flatness.
4. Without delay, evenly apply the remaining portion of the product. Float the surface again with clip-on float shoes. reprofile, if needed. If desired, pan float, followed by finish troweling.
Note: Do not use pan floats to incorporate the dry shake into the base concrete. They may be used only for final floating to achieve flatter floors. Hand float edges with wood or laminated canvas-resin floats or darbies. Do not use magnesium floats, as this can lead to discoloration.

TROWELING

1. When the concrete allows, conduct 2 – 3 mechanical trowelings. Leave the prepared slab untouched until the surface has lost its sheen and can support the weight of a finisher and a finishing machine. At this point conduct the first troweling of the surface.
2. On the first application keep trowel blades as flat as possible without digging into the surface.
3. As the surface tightens further, the trowel blades may be gradually raised to produce the desired surface. remove all marks and pinholes in the final slightly raised trowel application. Do not burnish colored dry-shake floors.
Note: All moisture used to incorporate dry shake material must come from within the slab. **UNDER NO CIRCUMSTANCES SHOULD WATER BE APPLIED TO AID IN THE INCORPORATION OF THE DRY SHAKE.**
Under severe or rapid drying conditions (hot and/or windy), Sikadur-30 ER evaporation reducer or other approved materials may be mist sprayed onto the dry shake to prevent rapid-moisture loss. **MISUSE OF THESE MATERIALS CAN COMPROMISE COLOR AND PERFORMANCE OF THE DRY SHAKE.**

CURING

1. At the completion of final troweling and when the surface will not be marred, apply an approved membrane curing compound such as Sikagard® 1315 KNS.
2. After drying, protect hardened surface by covering it with a scuff-proof, non-staining builder paper.
3. Keep floors covered and free of traffic and loads for a minimum of 10 days after completion.
4. Maintain ambient temperature at 50°F or above during the curing period.
5. Do not moist cure or cure with polyethylene.
6. For VOC-compliance on Light-reflective floors, contact your local Sika representative for curing recommendations.

JOINTS

OPTION 1: SEMI-RIGID JOINT FILLER

After a minimum of 90 days,* apply a semi-rigid epoxy or polyurea joint filler, such as Sikagard® CR 190 in all non-dynamic control and saw-cut construction joints. Place the joint filler in compliance with manufacturer's instructions.
* Please refer to ACI 302r-96, Chapter 9.10.
Delay the installation of the joint filler as long as possible to allow the slab(s) to adequately cure. Proper curing will reduce the amount of separation between the slab and the joint filler.

OPTION 2: IRON-ARMORED JOINTS

1. Remove the concrete at the joints while it is still fresh. Remove it to a depth of 1/2" at the joint line and taper it back to the surface level over a width of 4".
2. Mix the Sikafloor® MetalTop-200 dry shake surface hardener with enough water to produce a stiff mortar. Hand float the area where the concrete has been removed, working up sufficient paste at the surface to ensure an integral bond.
3. Immediately place the Sikafloor® MetalTop-200 mortar into the prepared joint, then rescreed the area to level. Use approximately 4.5 lbs per lineal foot, which is 2.25 lbs per foot for each side of the joint.

MAINTENANCE

CLEANING

Clean the tools and equipment with water before the paste sticking to them hardens.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at https://usa.sika.com/en/group/SikaCorp/termsandconditions.html or by calling 1-800-933-7452.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com