



The Chemical Company

Technical Data Guide

9

09 96 35
Chemical Resistant
Flooring

MasterTop® 1216

Chemical-resistant epoxy floor coating system

FORMERLY SELBACHEM 6611

YIELD

Primer: 200 ft²/gallon (6 m²/L)

Base coat: 160 ft²/gallon (4 m²/L)

Topcoat: 160 ft²/gallon (4 m²/L)

All coverage rates are approximate.

Coverage rates will vary with the desired texture and the porosity of the concrete.

PACKAGING

5 gallon (18.95 L) pails

55 gallon (208 L) drums available by special order

COLOR

Clear and 7 standard colors.

Custom colors are available on request.

Custom colors are subject to minimum quantities, increased manufacturing lead-times, and premium pricing.

Refer to the BASF Performance Flooring Color Guide for more information.

SHELF LIFE

MasterTop Epoxy coatings: 2 years when properly stored.

STORAGE

Store and transport in unopened containers in a clean, dry environment. Protect from freezing.

VOC CONTENT

See the MasterTop 1216 LEED Letter

DESCRIPTION

MasterTop 1216 is a 100% solids epoxy, non-reinforced 20 mil coating system. It consists of two 10 mil topcoats applied over a properly primed surface. Its finish can be adjusted to provide various slip resistant textures. It is specifically formulated for areas requiring an increased level of chemical resistance.

PRODUCT HIGHLIGHTS

- Specially formulated epoxy technology to protect floors from dilute inorganic and organic acids, caustics, and solvents
- Available in clear or pigmented finishes for a wide range of decorative looks
- Available in a variety of textures to customize slip resistance according to the needs of facility
- In-service temperature range of -20 to 170° F (-29 to 76° C) ideal for a wide range of environments

APPLICATIONS

- Areas requiring an increased level of chemical resistance
- Where chemicals are used or stored
- Industrial plants
- Petrochemical facilities
- Pulp and paper industry
- Food-processing plants
- Waste areas
- Kitchens
- Laboratories

LOCATION

- Interior

SUBSTRATE

- New and existing concrete surfaces and toppings

TECHNICAL DATA

COMPOSITION

MasterTop 1216 is a 100% solids specially formulated epoxy.

TYPICAL PROPERTIES

PROPERTY	VALUE
Full cure , days, at 73° F (23° C)	7

TEST DATA

PROPERTY	RESULTS	TEST METHODS
Abrasion resistance , mg loss; CS-17 Wheel, 1,000 g load, 1,000 cycles	0.150	ASTM D 4060
Rate of burning	Self-extinguishing	ASTM D 635
Bond strength , psi (MPa) 100% concrete failure	350 (2.4)	ASTM D 4541
Compressive strength , psi (MPa)	14,000 (96)	ASTM C 579
Tensile strength , psi (MPa)	3,000 (21)	ASTM D 638
Tensile elongation , %	1.0	ASTM D 638
Hardness , Shore D	75 – 80	ASTM D 2240
Impact resistance	No chipping, cracking or delaminating	MIL-D-3134
Oil absorption	Nil	MIL-D-3134
Water absorption , %	< 1.0	MIL-D-3134
Heat resistance , at 158° F (70° C) for 5 hours	No flow, slip, or softening	MIL-D-3134

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C) and 50% relative humidity.

CHEMICAL RESISTANCE

CHEMICAL	RESISTANCE
Mineral acids	Very good
Fats, oils, and sugars	Excellent
Organic solvents	Very good
Alkalis	Very good

Full chemical resistance is achieved after curing for 7 days. For resistance to a specific chemical compound, consult the MasterTop Chemical Resistance Guide. Contact Technical Service for specific exposure levels.

HOW TO APPLY

SURFACE PREPARATION

1. Concrete floors must be structurally sound and fully cured a minimum of 28 days. Test floor for vapor drive in accordance with ASTM D 4263, ASTM F 2170 or ASTM F 2420.
2. Repair concrete as necessary.
3. Use a commercial degreaser to clean floors of oil, grease, and other bond-inhibiting materials.
4. Remove curing and parting compounds and other surface hardeners and floor coatings in accordance with the manufacturer's instructions.
5. Mechanical surface profiling is the method of surface preparation for both new and existing floors. Mechanically profile the floor to CSP 3 (approximating medium-grit sandpaper) as described by the International Concrete Repair Institute. Do not use acid etching for surface preparation. Do not use any method that will fracture the concrete.
6. Apply a 25 ft² (2.35 m²) test in an inconspicuous area that meet the owner's expectations for appearance, slip resistance, and performance.

MIXING

1. Mix the components for this product in the following ratios.

TYPICAL PROPERTIES

APPLICATION COMPONENTS	MIX RATIO BY VOLUME
Primer MasterTop GP 500 Part A / Part B	2 to 1
Base Coat MasterTop TC 565 Part A / Part B	2 to 1
Topcoat MasterTop TC 565 Part A / Part B	2 to 1

2. Properly mix each component separately before mixing together to ensure uniform consistency.
3. Combine materials in a suitably sized container. Use the proper ratios of A and B. Scrape the sides of the containers to ensure a complete reaction.
4. Mix properly for 3 minutes with a slow speed drill and Jiffy style mixing paddle at 350 rpm. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

PRIMING

Prime the properly prepared concrete with MasterTop GP 500 epoxy. Apply the primer at approximately 200 ft²/gallon (5 m²/L).

APPLICATION

BASE COAT

1. Mix MasterTop TC 565 as described under the Mixing section. Apply the mixed material on primed concrete by squeegee or trowel at a maximum coverage rate of 160 ft²/gal at (4 m²/L). Allow it to level.
2. Broadcast aggregate, if desired, into the wet base coat for a slip-resistant surface. Allow to cure. Then sweep, stone, and vacuum the excess aggregate.

TOPCOAT

1. Apply the properly mixed MasterTop TC 565 to the base coat by squeegee or trowel at a maximum coverage rate of 160 ft²/gallon (4 m²/L).
2. For textured surfaces, apply the material at a rate that will achieve the desired finish.

DRYING TIME

Tack free: 4 – 6 hours

Accepts light traffic: 24 hours

Full cure for chemical resistance: 7 days

Recoat window: 12 – 24 hours

Drying times are based on 73° F (23° C) and 50% relative humidity. Lower temperatures will extend the cure times significantly.

MAINTENANCE

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance, and reduce any tendency to retain dirt. Refer to the MasterTop cleaning and maintenance guide for more information.

FOR BEST PERFORMANCE

- Precondition this product to 70° F (21° C) for 24 hours before using.
- Do not exceed the recommended recoat window of 24 hours; if in doubt, contact your BASF flooring specialist.

- Use an effective moisture barrier for substrates on or below grade; if not present, call your local BASF representative for options.
- BASF representatives and flooring specialists can help you select the proper flooring system. Call 1-800-433-6739 for in-house and field technical assistance.
- Install this product at a substrate temperature of 50 to 85° F (10 to 30° C).
- After priming and before each additional coat, examine the surface for an amine blush (an oily film that all epoxies may exhibit). If present, the blush must be removed before the application of subsequent coats.
- Do not use for primary containment or constant water immersion.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.BASF.us to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Health, Safety and Environmental Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. **For medical emergencies only, call ChemTrec 1(800)424-9300.**

LIMITED WARRANTY NOTICE

Every reasonable effort is made to apply BASF exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, BASF MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and BASF shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the BASF Technical Manager.

This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, BASF disclaims all CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. BASF SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS)

OF ANY KIND. BASF reserves the right to make any changes according to technological progress or further developments. It is the customer's responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used.

FOR PROFESSIONAL USE ONLY. NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC.

BASF Corporation
Constructions Systems

889 Valley Park Drive, Shakopee, MN 55379
www.master-builders-solutions.basf.us

Customer Service 1(800)433.9517
Technical Service 1(800)243.6739

