

The Chemical Company

## Technical Data Guide

09 96 35 Chemical Resistant Flooring

# MasterTop® 1236 Self-leveling chemical resistant epoxy slurry system

#### FORMERLY SELBACHEM 6631

#### YIELD

<u>Primer:</u> 200 ft²/gal (5 m²/L) <u>Base coat or top coat:</u> 30 ft²/batch (2.8 m²) <u>Optional top coat:</u> 150 ft²/gal (3.75 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

Base coat is available in 7 standard colors. Refer to BASF Performance Flooring Color Guide. Custom colors are subject to minimum quantities and increased manufacturing lead-times. Contact BASF Customer Service for further information.

#### SHELF LIFE

MasterTop Epoxy resins: 2 years when properly stored

#### STORAGE

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

#### **VOC CONTENT**

See MasterTop 1236 LEED Letter

#### DESCRIPTION

MasterTop 1236 is a self-leveling 100% solids epoxy coating system applied at 1/8" (3 mm) in thickness. It consists of a silica flour filled primer and a blended aggregate filled coating. An additional topcoat is required for textured applications. MasterTop 1236 specifically formulated for areas requiring an increased level of chemical resistance.

#### PRODUCT HIGHLIGHTS

- Self-leveling allows for ease of application
- Specially formulated epoxy to protects floors from dilute inorganic and organic acids, caustics and solvents
- Available in textures to tailor slip resistance to facility requirements
- Available in clear or pigmented finishes for a wide range of decorative looks
- In-service temperature range of -20 to 170° F (-29 - 76° C) is ideal for a wide range of environments

#### **APPLICATIONS**

- Areas requiring an increased level of chemical resistance
- Floors requiring a 1/8" (3.2 mm) body over moderately damaged or profiled concrete
- 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 1236 is a 100% solids specially formulated epoxy.

### **TYPICAL PROPERTIES**

PROPERTY	VALUE
Full curing time, days	7

#### TEST DATA FOR RESIN

PROPERTY	RESULTS	TEST METHODS
<b>Abrasion resistance,</b> 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)	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 70° F (23° C) and 50% relative humidity.

#### CHEMICAL RESISTANCE

CHEMICAL	RESISTANCE
Mineral acids	Very good; call for specific exposure levels
Fats, oils, and sugars	Excellent
Organic solvents	Very good; call for specific exposure levels
Alkalis	Very good; call for specific exposure levels

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

#### HOW TO APPLY

SURFACE PREPARATION

- 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.
- 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 penetration for both new and existing floors. Mechanically profile the floor to a minimum CSP 4 as described by the International Concrete Repair Institute.
- **6.** Apply a 25 ft<sup>2</sup> (2.35 m<sup>2</sup>) 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 + Silica flour*	2 to 1 to 1
Base Coat or Top Coat MasterTop TC 565 Part A / Part B + MasterTop SL 500F	2 to 1 to 1.5
Optional Lock Coat	
MasterTop TC 565 Part A / Part B	1 to 1
*Silica flour must be sourced separate	ly from

\*Silica flour must be sourced separately from local suppliers.

- Properly mix each component separately before mixing together to ensure uniform consistency.
- **3.** Combine Parts A and B 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.

**5.** Mix in aggregate according to directions in the Application section.

#### PRIMING

- Mix MasterTop GP 500 epoxy and silica flour at a rate of 2 parts MasterTop GP 500 Part A to 1 part MasterTop GP 500 Part B and 1 part silica flour.
- **2.** Apply the prime coat with a trowel or squeegee at an approximate coverage rate of 200  $ft^2$ /gallon (5 m<sup>2</sup>/L). The coverage rate will vary with the condition of the substrate.

#### APPLICATION

- Mix MasterTop TC 565 Part A with MasterTop TC 565 Part B as described under Mixing. Slowly add 20 lbs of MasterTop SL 500F aggregate for each 1-1/2 gallons (5.7 L) of mixed resin. The mix ratio by volume is 1-1/2 (5.7 L) gallons of mixed resin to 1-1/2 (5.7 L) gallons of aggregate.
- 2.Over properly prepared and primed concrete, spread the material with a V-notched squeegee and back roll with a loop roller. Finish roll with a pin roller. Allow to self-level. The maximum coverage rate should be approximately 60 ft<sup>2</sup>/batch (5.6 m<sup>2</sup>).
- **3.**Broadcast aggregate, if desired, into the wet base or topcoat for a slip-resistant finish. Allow to cure. Sweep, stone and vacuum the excess aggregate.
- 4.Apply an optional top coat of MasterTop TC 565 to obtain the desired amount of slip resistance and smoothness.

#### DRYING TIME

Accepts light traffic: 24 hours Fully cured for chemical resistance: 7 days Recoat window: 12 – 24 hours Cure times are based on 73° F (23° C) at 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 Master-Top 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.
- Do not use for primary containment or constant water immersion.
- 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 these products 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.
- 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.

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