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Chemical Resistant
Flooring

MasterTop® 1246

Trowel applied chemical-resistant epoxy topping system

FORMERLY SELBACHEM® 6651

YIELD

Primer: 200 ft²/gallon (5 m²/L)

Base coat: 50 ft²/batch (4.6 m²/batch)

Grout coat: 80 – 100 ft²/gallon

(2 – 2.5 m²/L)

Topcoat: 80 – 100 ft²/gallon

(2 – 2.5 m²/L)

Coverage rates assume a total system thickness of 1/4" (6 mm). All rates are approximate and will vary with the desired texture and porosity of the concrete.

PACKAGING

1 gallon (3.79 L) cans

5 gallon (18.95 L) pails

55 gallon (208 L) drums available by special order

Aggregate: sold in bags

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 Master Builders Solutions Performance Flooring Color Guide for more information.

SHELF LIFE

2 years when properly stored.

STORAGE

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

VOC CONTENT

Refer to MasterTop 1246 LEED Letter

DESCRIPTION

MasterTop 1246 is a 100% solids epoxy topping. It utilizes chemical-resistant epoxy resins and aggregate blends to create a surfacing base with pigmented topcoats. It is applied over a properly primed surface at a thickness of 1/4" (6mm). MasterTop 1246 is formulated specifically for areas requiring an increased level of chemical resistance.

PRODUCT HIGHLIGHTS

- 1/4" (6 mm) base provides increased abrasion and impact resistance
- Specially formulated epoxy to protect floors from dilute inorganic and organic acids, caustics and solvents
- Available in a variety of customizable textures to meet each facility's needs
- Available in clear or pigmented finishes for a wide range of decorative looks
- In-service temperature range of -20 to 170° F (-29 – 77° C) is ideal for hot or cold environments

APPLICATIONS

- Heavy-duty traffic areas
- Areas requiring an increased level of chemical resistance
- Floors requiring a 1/4" (6 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 1246 is a 100% solids specially formulated epoxy.

TYPICAL PROPERTIES

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

TEST DATA FOR RESIN

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)	350 (2.4) 100% concrete fail	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 MIL-D-3134 or softening	

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C) and 50% relative humidity. Test Results are typical values obtained under laboratory conditions. Reasonable variations can be expected.

CHEMICAL RESISTANCE

CHEMICAL	RESISTANCE
Mineral acids	Very good; call for specific exposure
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 Master Builders Solutions Performance Flooring 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.
- Repair concrete as necessary.
- 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.
- 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.
- Apply a 25 ft² (2.35 m²) test in an inconspicuous area that meets the owner's expectations for appearance, slip resistance and performance.

MIXING

- 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 MasterTop F 500TG Aggregate	2 to 1 + aggregate*
Grout Coat MasterTop TC 565 Part A / Part B	2 to 1
Top Coat MasterTop TC 565 Part A / Part B	2 to 1

*Add 2 bags for every 1-1/2 gallons of mixed resin.

- Properly mix each component separately before mixing together to ensure uniform consistency.
- 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.

- 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.
- Mix in aggregate according to instructions in the Application section.

PRIMING

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

APPLICATION

BASE COAT

- Mix MasterTop TC 565 resins for the base coat. Slowly add 100 lbs of MasterTop F 500TG aggregate for each 1-1/2 gallons of mixed resin. Mix thoroughly.
- On properly prepared and primed concrete, screed and trowel the mix to a 1/4" thickness.

GROUT COAT

- Apply the properly mixed MasterTop TC 565 onto the base coat by squeegee or trowel. Apply at an approximate coverage rate of 80 – 100 ft²/gallon (2 – 2.5 m²/L). The grout coat must fill any voids remaining in the base coat.
- Broadcast aggregate, if desired, into the wet grout coat for a slip-resistant finish. Allow to cure. Sweep, stone, and vacuum the excess.

TOPCOAT

- Apply the properly mixed MasterTop TC 565 onto the grout coat by squeegee or trowel. Apply at an approximate coverage rate of 80 – 100 ft²/gallon (2 – 2.5 m²/L). Spread the material out and allow it to level.
- 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

Fully cured for chemical resistance: 7 days

Recoat window: 12 – 24 hours

Cure 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 Master Builders Solutions flooring specialist.
- Use an effective moisture barrier for substrates on or below grade; if not present, call your local Master Builders Solutions representative for options.
- Master Builders Solutions 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).
- Do not use for primary containment or constant water immersion.
- 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; www.master-builders-solutions.com/en-us to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions 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.com/en-us, e-mailing your request to mbsbscst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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