



The Chemical Company

Technical Data Guide

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Resinous
Flooring

MasterTop® 1245 CLAD

1/4" (6 mm) trowel applied industrial epoxy flooring system

FORMERLY SELBACLAD™ 425

YIELD

Primer: 250 ft²/gallon (6.25 m²/L)

Base coat: 50 ft²/batch (4.6 m²)

Grout coat: 100 – 120 ft²/gallon
(2.5 – 3 m²/L)

Finish coat: 250 ft²/gallon (6.25 m²/L)

All coverage rates are approximate.

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

PACKAGING

Epoxy Resin: 5 gallon (18.95 L) pails

55 gallon (208 L) drums available by special order

[MasterTop TC 493](#) and [MasterTop TC 683](#)

Topcoats:

1 gallon (3.71 L) cans

5 gallon (18.9 L) pails

COLOR

Available in 7 standard colors

Custom colors are subject to minimum quantities and increased manufacturing lead-times. Contact BASF Customer Service for further information.

SHELF LIFE

[MasterTop Epoxy coatings](#): 2 years when properly stored.

[MasterTop TC 493 Polyurethane topcoat](#): 1 year when properly stored.

[MasterTop TC 683 Polyaspartic topcoat](#): 1 year when properly stored.

STORAGE

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

VOC CONTENT

See MasterTop 1245 CLAD LEED Letter

DESCRIPTION

MasterTop 1245 CLAD is a polymeric flooring system composed of high solids epoxy resins and specially graded aggregates. It is a trowel applied pigmented clad layer with a pigmented finish coat.

PRODUCT HIGHLIGHTS

- Formulated to provide good abrasion and impact resistance for heavy-duty use
- Can be applied with an orange-peel finish (see MasterTop 1212TX product data sheet) to provide an attractive, uniform appearance
- Temperature service range of 0 to 170° F (-18 to 76° C) is suitable for a wide range of environments
- High solids formulation is VOC compliant in all regions and low in odor
- Epoxy technology provides good chemical resistance

APPLICATIONS

- Areas subject to forklift and heavy foot traffic, impact pressures and chemical exposure
- Chemical processing areas
- Refineries
- Correctional facilities
- Heavy-duty manufacturing facilities
- Food-packaging areas
- Laboratories
- Clean rooms

LOCATION

- Interior

SUBSTRATE

- Over new and existing concrete floors and toppings

TECHNICAL DATA

COMPOSITION

MasterTop 1245 CLAD is composed of high-solids epoxy resins and specially graded aggregates.

TYPICAL PROPERTIES

PROPERTY	VALUE
Weight , lbs/ft ² (kg/m ²), at a 1/4" (6 mm) thickness	2.4 (5.86)

TEST DATA

PROPERTY	RESULTS	TEST METHODS
Compressive strength , psi (MPa)	13,100 (92)	ASTM C 579
Tensile strength , psi (MPa)	8,000 (56)	ASTM D 638
Flexural strength , psi (MPa)	4,990 (34)	ASTM D 790
Surface flammability		ASTM E 162
Flame spread index	9.29	
Smoke deposit, mg/ms	0.1	
NBS Class	1	
Rate of burning	Self-extinguishing	ASTM D 635
Abrasion resistance , mg loss; CS-17 Wheel, 1,000 g load, 1,000 cycles	0.070	ASTM D 4060
Hardness , Shore D	75 – 85	ASTM D 2240
Indentation, inches		MIL-D-3134
Initial	0.007 (0.6%)	
24 hr residual	0.0 (0.5)	
Impact resistance	No chipping, cracking or delaminating	MIL-D-3134
Rate of burning	Self-extinguishing	ASTM D 635
Adhesive strength , psi (MPa)	350 (2.5) 100% concrete failure	ASTM D 4541
Slip-resistant properties	Minimum 0.8 Exceeds ADA requirements	MIL-D-3134
Oil absorption	Nil	MIL-D-3134
Water absorption	Nil	MIL-D-3134
Heat resistance , at 158° F 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. Test Results are typical values obtained under laboratory conditions. Reasonable variations can be expected.

CHEMICAL RESISTANCE

In accordance with ASTM D 1308, MasterTop 1245 CLAD with the standard epoxy finishing coat will resist spills and exposures for up to 7 days at 70° F (22° C) for the following chemicals.

- Dilute mineral acids, including hydrochloric (< 30%), phosphoric (< 20%), and sulfuric (< 50%)
- Alkalis, including potassium hydroxide up to 50% concentration
- Some dilute organic acids, such as acetic (30%), formic, citric, and uric
- Fats, oils, and sugars
- Mineral oils, diesel fuel, kerosene, and gasoline
- Some organic solvents, including aliphatic hydrocarbons

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

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 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 ft² (2.35 m²) test in an inconspicuous area that meets 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 GP 500 Part A / Part B + MasterTop PGM 500 pigment pack + MasterTop F 500TG aggregate	2 to 1
Grout Coat MasterTop TC 504 Part A / Part B	1 to 1
Topcoat MasterTop TC 504 Part A / Part B	3 to 1

2. 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 rpms. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

PRIMING

Apply the mixed primer to the properly prepared concrete at 250 ft²/gallon (6.25 m²/L). The base coat can be applied over the wet primer coat.

APPLICATION

1. Add 100 lbs (45 kg) of MasterTop F 500TG aggregate to each 1-1/2 gallon (5.7 L) batch of mixed Part A and B. Apply at approximately 50 ft²/batch (4.6 m²) to a 1/4" (6 mm) nominal thickness or to the specified depth. Allow to cure 12 – 24 hours.
2. Use a squeegee or trowel to install the grout coat at 100 – 120 ft²/gallon (2.5 – 3 m²/L). The grout coat must completely seal the porous base coat. Allow to cure 12 – 24 hours.
3. Apply the topcoat at 250 ft²/gallon (6.25 m²/L). Spread the coating by squeegee or trowel and back roll. The total system thickness should be a minimum of 1/4" (6 mm), depending on the specification.
4. Allow 24 hours to cure. Do not expose the finished floor to chemicals until a minimum of 7 days has passed.
5. Substitute a finish coat of MasterTop TC 493 or MasterTop TC 683 instead of MasterTop TC 504, if additional UV or abrasion resistance is required.

Note: Various curing agents can be used to achieve desired application properties. Refer to the MasterTop GP 500 or MasterTop TC 504 product data guides for more information.

DRYING TIME

Primer: 12 – 24 hours

Base coat: 12 – 24 hours

Grout coat: 12 – 24 hours

Topcoat: see individual topcoat data guides

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.
- Boxing batches is recommended to ensure color consistency.
- Do not expose the finished floor to chemicals until fully cured (7 days).
- Use an effective moisture-vapor barrier for substrates on or below grade; if not present, contact your BASF representative flooring specialist for options.
- Install these products at a substrate temperature between 50 and 85° F (10 and 30° C).
- The maximum service temperature is 170° F (76° C).
- As an alternative to the finish coat, apply MasterTop TC 493 or Master Top TC 683 for increased abrasion resistance, color retention and UV stability.
- Rapid temperature cycling can lead to premature failure of the product.
- 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.
- 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.

