

# MasterTop<sup>®</sup> 1249 CLAD

Trowel applied decorative epoxy flooring system

FORMERLY SELBACLAD<sup>®</sup> 415

## YIELD

Primer: 200 ft<sup>2</sup>/gallon (6.25 m<sup>2</sup>/L)

Base coat: 50 ft<sup>2</sup>/batch (4.5 m<sup>2</sup>/L)

Grout coat: 165 ft<sup>2</sup>/gal (4.1 m<sup>2</sup>/L)

Topcoat: 250 ft<sup>2</sup>/gallon (6.25 m<sup>2</sup>/L)

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

## PACKAGING

1 gallon (3.79 L) cans

5 gallon (18.95 L) pails

55 gallon (208 L) drums

Aggregate: 50 lb bags (22.7 kg)

Pigments: 1 Pint Can (0.47 L)

## COLOR

Base coat: 7 standard colors; see the BASF Performance Flooring Color Guide for details

Topcoat: clear only

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

## SHELF LIFE

MasterTop Epoxy coatings: 2 years when properly stored.

Polyurethane topcoat: 1 year when properly stored

Polyaspartic top coat: 1 year when properly stored

## STORAGE

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

## VOC CONTENT

See MasterTop 1249 CLAD LEED Letter

## DESCRIPTION

MasterTop 1249 CLAD is a 1/4" (6 mm) polymeric flooring system composed of 100% solids, tinted, epoxy resin components and specially graded aggregates. It is a trowel applied, tinted clad layer with a clear finish coat. This flooring system yields heavy duty performance similar to MasterTop 1245 CLAD with a decorative, natural aggregate look.

## PRODUCT HIGHLIGHTS

- Specially graded aggregates are formulated for heavy-duty use
- Clear topcoat provides decorative aggregate final appearance
- Temperature service range of 0 to 170° F (-18 to 76° C) is ideal for a wide range of environments
- Good abrasion, chemical, and impact resistance for long lasting protection
- 100% solids formulation that is low in odor and VOC compliant in all regions
- Can be used with MasterTop TC 493 or MasterTop TC 683 topcoats for increased abrasion and chemical resistance

## APPLICATIONS

- Where a high level of impact and chemical resistance is required
- MasterTop 1249 CLAD withstands forklift and heavy foot traffic as well as impacts
- Correctional facilities
- Cafeterias, food-preparation and service areas
- Laboratories
- Aisles
- Clean rooms

## LOCATION

- Interior only

## SUBSTRATE

- Over new and existing concrete floors and toppings; for other substrates, contact Technical Service

**TECHNICAL DATA**

COMPOSITION

MasterTop 1249 CLAD is an epoxy resin system with specially-graded aggregates.

**TYPICAL PROPERTIES**

PROPERTY	VALUE
<b>Weight</b> , lbs/ft <sup>2</sup> (kg/m <sup>2</sup> ), at 1/4" (6 mm) thickness	2.4 (11.7)

**TEST DATA**

PROPERTY	RESULTS	TEST METHODS
<b>Compressive strength</b> , psi (MPa)	13,100 (92)	ASTM C 579
<b>Tensile strength</b> , psi (MPa)	8,000 (56)	ASTM D 638
<b>Flexural strength</b> , psi (MPa)	4,990 (34)	ASTM D 790
<b>Surface flammability</b>		
Flame spread index	9.29	ASTM E 162
Smoke deposit, mg/ms	0.1	
NBS Class	1	
<b>Rate of burning</b>	Self-extinguishing	ASTM D 635
<b>Abrasion resistance</b> , mg loss; C-1 Wheel, 1,000 g load, 1,000 cycles	0.070	ASTM D 4060
<b>Hardness</b> , Shore D	75 – 85	ASTM D 2240
<b>Indentation, inches</b>		
Initial	0.007 (0.6%)	MIL-D-3134
24 hr residual	0.0 (0%)	
<b>Impact resistance</b>	No chipping, cracking, or delaminating	MIL-D-3134
<b>Fire resistance</b>	Fire retardant	MIL-D-3134
<b>Adhesive strength</b> , psi (MPa)	350 (2.5) 100% concrete failure	ASTM D 4541
<b>Slip-resistant properties</b>	Minimum 0.8 Exceeds ADA requirements	MIL-D-3134
<b>Oil absorption</b>	Nil	MIL-D-3134
<b>Water absorption</b>	Nil	MIL-D-3134
<b>Heat resistance</b> , at 158° F 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).

**CHEMICAL RESISTANCE**

In accordance with ASTM D 1308, MasterTop 1249 CLAD with the standard epoxy finishing coat will resist spills and exposures for up to 7 days at 72° F (22° C) for the following chemicals.

- Dilute mineral acids, including hydrochloric (< 30%), phosphoric (< 20%), and sulfuric (< 50%)
- Alkalis, including potassium hydroxide 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 BASF Performance Flooring 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 ft<sup>2</sup> (2.35 m<sup>2</sup>) 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
<b>Primer</b> MasterTop GP 500 Part A / Part B	2 to 1
<b>Base Coat</b> MasterTop GP 500 Part A / Part B + MasterTop PGM 500 pigment pack + MasterTop F500TG aggregate	2 to 1 *Aggregate **Pigment
<b>Grout coat</b> MasterTop GP 500 Part A / Part B	2 to 1
<b>Topcoat</b> MasterTop GP 500 Part A / Part B	2 to 1

\*Add 2 bags of aggregate for every 1-1/2 gallons of mixed resin.  
 \*\*Add 1 pigment pack every 3 mixed gallons of MasterTop GP 500.  
 (Note: Some colors will require 2 pigment packs for every 3 mixed gallons. Consult the BASF Performance Flooring color chart for more information.)

2. 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 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 200 ft<sup>2</sup>/gallon (5 m<sup>2</sup>/L). The base coat can be applied over the wet primer coat.

### APPLICATION

#### BASE COAT – HAND TROWELING

Add 100 lbs of MasterTop F 500TG aggregate to each 1-1/2 gallon batch of mixed Part A and B. Apply at approximately 50 ft<sup>2</sup>/batch (4.5 m<sup>2</sup>/L) to a 1/4" (6 mm) nominal thickness or to the specified depth. Allow to cure 12 – 24 hours.

#### GROUT COAT

Use a squeegee or trowel to install the clear grout coat at 50 – 200 ft<sup>2</sup>/gallon (1.25 – 5 m<sup>2</sup>/L). The grout coat must completely seal the porous base coat. Allow to cure 12 – 24 hours.

#### FINISH COAT

1. Apply the clear topcoat at 250 ft<sup>2</sup>/gallon (6.25 m<sup>2</sup>/L). Spread the coating by squeegee or trowel and back roll. The total thickness should be a minimum of 1/4" (6 mm), depending on the specification.
2. Allow 24 hours to cure. Do not expose the finished floor to chemicals until fully cured, a minimum of 7 days.
3. Substitute a finish coat of MasterTop TC 493 or MasterTop TC 683 if additional abrasion, chemical or UV resistance is needed.  
 Note: Various curing agents can be used to achieve desired application properties; refer to the MasterTop GP 500 product data guide for more information.

### DRYING TIME

Primer: 12 – 24 hours (base coat can be applied wet on wet)  
 Base coat: 12 – 24 hours  
 Grout coat: 12 – 24 hours  
 Topcoat: 24 hours  
 Recoat window: 12 – 24 hours  
 Drying times assume 70° F (21° C) and 50% relative humidity.

### 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

- Do not exceed the recommended recoat window of 24 hours; if in doubt, contact your flooring specialist.
- Boxing batches is recommended to ensure color consistency.
- Precondition this product to 70° F (21° C) for 24 hours before using.
- Do not expose the MasterTop 1249 CLAD flooring system to any chemicals until fully cured (7 days).
- Use an effective moisture vapor barrier for substrates on or below grade; if not present, contact your BASF Flooring Representative for options.
- Install these products at a substrate temperature between 50 and 85° F (10 and 30° C).
- For resistance to chemicals, consult the Chemical Resistance Guide.
- The maximum service temperature is 170° F (76° C).
- Rapid temperature cycling can lead to premature failure of this product.
- As an alternative to the topcoat, apply MasterTop TC 493 polyurethane or MasterTop TC 683 polyaspartic polyurethane for increased abrasion resistance, color retention, and UV stability.

- Before the job starts, the architect and owner should address joint details with the flooring contractor.
- BASF representatives and flooring specialists are available to assist you in the selection of the proper coating system. Call 1-888-243-6739 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](http://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](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbcst@basf.com](mailto:basfbcst@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.**