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Technical Data Guide

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Seamless Quartz
Flooring

MasterTop® 1244

Trowel-applied decorative epoxy floor system

FORMERLY SELBATWEDE™ 71

YIELD

Primer: 200 ft²/gallon (5 m²/L)
Base coat: 60 ft² (5.57 m²)/batch
Grout coat: 100 ft²/gallon (9.3 m²/L)
Topcoat: 200 ft²/gallon (5 m²/L)
All coverage rates are approximate.
Coverage rates will vary with the desired texture and the porosity of the concrete.

PACKAGING

Epoxy coatings: 5 gallon (18.95 L) pails
55 gallon (208 L) drums available by special order
Aggregate: sold in 55 lb (25 kg) bags
MasterTop TC 493 polyurethane topcoat:
1 gallon (3.79 L) cans and 5 gallon (18.95 L) pails
MasterTop TC 683 polyaspartic topcoat:
1 gallon (3.79 L) cans and 5 gallon (18.95 L) pails

COLOR

Variety of quartz blend options available. Custom blends are available on request. Custom orders are subject to minimum quantities and increased manufacturing lead times. Refer to the Performance Flooring Color Guide for more information. (Color blends exhibit normal industry variations.)

SHELF LIFE

MasterTop epoxy resins: 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 1244 LEED Letter

DESCRIPTION

MasterTop 1244 is a 100% solids trowel-applied epoxy with colored quartz aggregates. The trowel application will impart more color depth, a smoother finish, and greater durability than the MasterTop 1234 system. It is applied over properly primed surfaces at a depth of 3/16" (5 mm).

PRODUCT HIGHLIGHTS

- 3/16" (6 mm) trowel base will accommodate damaged surfaces for greater impact resistance and extended service life
- Large, multi-colored quartz aggregate provides a stratified, decorative appearance
- Epoxy technology provides good chemical resistance
- 100% solids epoxy formulation is VOC compliant in all regions and low in odor
- Trowel applied system that can utilize terrazzo strips to create decorative patterns

APPLICATIONS

- Medium to heavy-duty traffic areas requiring a decorative finish
- Where aesthetics is a primary concern
- Commercial and industrial applications
- Lobbies
- Corridors
- Auditoriums
- Cafeterias
- Research laboratories
- Classrooms
- Restrooms

LOCATION

- Interior

SUBSTRATE

- New and existing concrete floors and toppings

TECHNICAL DATA

COMPOSITION

MasterTop 1244 is composed of a 100% solids epoxy-resin binder with colored quartz aggregate.

TYPICAL PROPERTIES

| PROPERTY | VALUE |
|--|-------------|
| Weight , lbs/ft ² (kg/m ²), at 1/8" (3 mm) | 4.98 (24.3) |

TEST DATA

| PROPERTY | RESULTS | TEST METHODS |
|--|---|----------------------|
| Impact strength , in-lbs | 60 | ASTM 2794 |
| Compressive strength , psi (MPa) | 12,900 (88.5) | ASTM C 579 |
| Tensile strength , psi (MPa) | 1,160 (8.0) | ASTM D 638 |
| Tensile elongation , % | 3.2 | |
| Flexural strength , psi (MPa) | 4,600 (31.5) | ASTM D 790 |
| Flexural modulus (resin) | 398,000 | |
| 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 |
| Mandrel bend | No cracking | ASTM D 522 |
| abrasion resistance , mg loss; CS-17 wheel, 1,000 g load 1,000 cycles | < 0.078 | ASTM D 4060 |
| Indentation , in | | MIL-D-24613 |
| Initial | 0.0016 | |
| 24 hr residual | 0.0008 | |
| Impact resistance | No chipping, cracking or delamination | MIL-D-24613 |
| Fire resistance | Fire retardant | MIL-D-24613 |
| Adhesive strength , psi (MPa) | > 7,500 (51.7) 100% concrete failure | ASTM D 4541 |
| Coefficient of friction | | ASTM D 2047 |
| Dry | > 1.20 | |
| Wet | > 0.47 | |
| Oil absorption | Nil | MIL-D-24613 |
| Water absorption | Nil | MIL-D-24613 |
| Thermal stability | No de-bonding | ASTM C 844, modified |

Unless otherwise noted, test samples were cured 7 days at 70° F (23° C) and 50% relative humidity.

CHEMICAL RESISTANCE

In accordance with ASTM D 1308, MasterTop 1244 with the standard MasterTop GP 500 finishing coat will resist exposure for up to 7 days at 72° F (22° C) for the following chemicals.

- Dilute mineral acids, including hydrochloric (< 30%), phosphoric (< 20%), and sulfuric (< 30%)
- Alkalis, including potassium hydroxide to a 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 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 DE 71CQ Aggregate | 2 to 1 |
| Grout Coat MasterTop GP 500 Part A / Part B | 2 to 1 |
| Top Coat MasterTop GP 500 Part A / Part B | 2 to 1 |
| Top Coat MasterTop TC 683 Part A / Part B | 1 to 1 |
| Top Coat MasterTop TC 493 Part A / Part B | 3 to 1 |

¹ Trowel aggregate at a rate of 75 lbs (33.75 kg) per 1-1/2 (5.7 L) gallons of mixed resin

² A trowelling additive may be applied at a rate of 10 lbs (4.5 kg) per 1-1/2 gallons (5.7 L) of mixed resin. This additive must be secured through local sources. Please consult your BASF representative for additional 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.

APPLICATION

1. Install the cove base, as required.
2. Install the prime coat by squeegee at 200 ft²/gallon (5 m²/L). The base coat can be applied to the wet prime coat.
3. Screed-apply the mixed epoxy base coat including the MasterTop DE 71CQ quartz aggregate at a rate of 60 ft² (5.57 m²)/batch. Hand trowel or power trowel the material to compact and level the base coat. Obtain a nominal thickness of 3/16" (5 mm). Allow to cure 12 – 24 hours.
4. Install the clear grout coat with squeegee or trowel at 100 ft²/gallon (2.5 m²/L) to seal the porous body coat. Allow to cure 12 – 24 hours.
5. Lightly sand and install the clear topcoat at 200 ft²/gallon (5 m²/L). Use a squeegee and lightly back roll. Allow to cure 24 hours.
6. For increased abrasion resistance and UV stability, substitute MasterTop TC 493 or MasterTop TC 683 for the finish coat.
7. Various curing agents can be used to achieve desired application properties. Refer to the MasterTop GP 500 product data sheet for more information.

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 expose to chemicals until fully cured (7 days).
- Use an effective moisture barrier for substrates on or below grade. If not present, call your local BASF representative for options.
- 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.
- For increased abrasion resistance and UV stability, substitute MasterTop TC 493 or MasterTop TC 683 for the finish coat.
- Install these products at a substrate temperature of 50 to 85° F (10 to 30° C).
- The in-service temperature range is 0 to 170° F (-18 to 76° C).
- The architect and owner should address joint details with the contractor before the job starts.
- 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.

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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