BASF

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Technical Data Guide

09 67 26
Seamless Quartz Flooring

MasterTop® 1234

Decorative epoxy floor system

FORMERLY SELBATWEDE™ 41

YIELD

First receiving coat: 160 ft²/gallon (4 m²/L)
Second receiving coat: 100 ft²/gallon (2.5 m²/L)
Grout coat: 80 – 100 ft²/gallon (2 – 2.5 m²/L)
Top coats:
MasterTop GP 500 – 200 ft²/gallon (5 m²/L)
MasterTop TC 565 – 250 ft²/gallon (6.25 m²/L)
MasterTop TC 493 – 300 ft²/ gallon (7.5 m²/L)
MasterTop TC 683 – 300 ft²/gallon (7.5 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 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

12 standard quartz blends*. Custom blends are available on request; custom orders have minimum quantities and increased manufacturing lead times. Refer to the minimum quantities and increased manufacturing lead times. for more information.
*Color blends exhibit normal industry variations.

VOC CONTENT

See MasterTop 1234 LEED Letter

DESCRIPTION

MasterTop 1234 consists of a two-component 100% solids epoxy-resin binder with colored quartz aggregate. The colored quartz imparts a slip-resistant surface that can be varied by the applicator. It is applied over properly prepared surfaces to a thickness of 1/8" (3 mm) to 3/16" (5 mm).

PRODUCT HIGHLIGHTS

- Broadcast system designed for ease of application
- Temperature in-service range of 0–170° F (-18–76° C) ideal for hot and cold environments
- 100% solids epoxy, VOC compliant and low odor
- Broadcast finish as texture can be varied to meet customer's needs
- Colored quartz finish available in standard and custom blends
- Epoxy resins for good chemical resistance

APPLICATIONS

- Light- to medium-duty traffic areas
- Commercial applications
- Corridors
- Restrooms and showers
- Locker rooms
- Auditoriums
- Cafeterias
- Laboratories

LOCATION

- Interior

SHELF LIFE

Epoxy Resins: 2 years when properly stored. MasterTop TC 493 and MasterTop TC 683 topcoats: 1 year when properly stored.

SUBSTRATE

- Apply over new and existing concrete and toppings

STORAGE

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

TECHNICAL DATA

COMPOSITION

MasterTop 1234 is a 100% solids epoxy-resin binder with colored quartz aggregate.

TYPICAL PROPERTIES

PROPERTY	VALUE
Weight, lbs/ft² (kg/m²) At 1/8" (3 mm)	4.98 (24.3)

TEST DATA

PROPERTY	RESULTS	TEST METHODS
Impact strength, in-lbs	60	ASTM D 2794
Compressive strength, psi (MPa)		
System	12,900 (88.9)	ASTM C 579
Resin	12,000 (82.7)	ASTM D 695
System	10,200 (70.3)	ASTM C 109
Tensile strength, psi (MPa)		ASTM D 638
System	1,160 (8.0)	
Resin	7,960 (54.8)	
Tensile elongation, %	3.2	ASTM D 638
Flexural strength, psi (MPa)		ASTM D 790
System	4,600(31.7)	
Polymer	14,100(97.1)	
Flexural modulus (resin)	398,000	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	0.078	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)	> 500 (> 3.4) 100% concrete failure	ASTM D 4541
Coefficient of friction		ASTM D 2047
Dry	> 0.7	
Wet	> 1.20	
Oil absorption	Nil	MIL-D-24613
Water absorption	Nil	MIL-D-24613
Thermal stability	No de-bonding modified	ASTM C 844

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

In accordance with ASTM D 1308, MasterTop 1234 with the standard MasterTop GP 500 finish coat will withstand exposure for up to 7 days at 70° 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 BASF Chemical Resistance Guide.

HOW TO APPLY

SURFACE PREPARATION

1. 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 preparation for both new and existing floors. Mechanically profile the floor to CSP 3 (approximating medium-grit sandpaper) as described by the International Concrete Repair Institute. Do not use acid etching for surface preparation. Do not use any method that will fracture the concrete.
6. Apply a 25 ft^2 (2.35 m^2) 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
First Receiving Coat MasterTop GP 500 Part A / Part B Broadcast Aggregate	2 to 1
Second Receiving Coat MasterTop GP 500 Part A / Part B Broadcast 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

2. Properly mix each component separately before mixing together to ensure a 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. Apply first receiving coat of epoxy resin at approximately 150 ft^2/gallon (3.75 m^2/L).
3. Broadcast the MasterTop DE 41CQ colored aggregate by hand or by mechanical blower into the wet receiving coat. Use 1/3 lb/ft^2 (1.63 kg/m^2) or as required. Make certain the entire floor is saturated with aggregate, exhibiting a dry appearance.
4. Allow to cure. Once cured, sweep, stone, and vacuum the excess aggregate.
5. Apply the second receiving coat of epoxy at approximately 100 ft^2/gallon (2.5 m^2/L).
6. Broadcast the MasterTop DE 41CQ colored aggregate by hand or by mechanical blower into the wet receiving coat. Use .5 lb/ft^2 (2.4 kg/m^2)or as required. Make certain the entire floor is saturated with aggregate, exhibiting a dry appearance.
7. Allow to cure, usually overnight; sweep, stone, and vacuum the excess aggregate.
8. Apply the clear grout coat at 80–100 ft^2/gallon (2–2.5 m^2/L) by squeegee. Lightly back-roll with a thick-nap roller. Allow to cure at least 8–10 hours.
9. Apply the clear finish coat at 250–300 ft^2/gallon (6.25–7.5 m^2/L) to achieve the desired texture or smoothness. For increased abrasion resistance and UV stability, substitute MasterTop TC 493 or MasterTop TC 683 for the finish coat.
10. Various curing agents can be used to achieve desired application properties; refer to the MasterTop GP 500 product

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).
- 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 or flooring specialist for options.
- 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).
- MasterTop 1234 will follow the contour of the substrate. Where this may be a concern, consider using MasterTop 1254 or MasterTop 1244.
- 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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