Technical Data Guide





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 421 UHW polyurethane

1 gallon (3.79 L) cans and 5 gallon (18.95 L) pails

MasterTop TC 693 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 421 UHW Polyurethane topcoat:

year when properly stored.
 <u>MasterTop TC 693 Polyaspartic topcoat:</u>
 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 epoxyresin 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	< 0.078	ASTM D 4060
wheel, 1,000 g load 1,000 cycles		
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
· · · · · · · · · · · · · · · · · · ·		

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

- 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

 Mix the components for this product in the following ratios:

TYPICAL PROPERTIES

TYPICAL PROPERTIES	
APPLICATION COMPONENTS	MIX RATIO BY VOLUME
Primer MasterTop GP 500 Part A / Part B /	2 to 1
Base Coat MasterTop DE 43CQ 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 693 Part A / Part B	1 to 1
Top Coat MasterTop TC 421 UHW Part A / Part B	4 to 1 (Optional Part C)

Trowel aggregate at a rate of 75 lbs (33.75 kg) per 1-1/2 (5.7 L) gallons of mixed resin
 A troweling additive may be applied at a rate of 10 lbs (4.5 kg)

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.
- 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 43CQ 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.
- For increased abrasion resistance and UV stability, substitute MasterTop TC 421 UHW or MasterTop TC 693 for the finish coat.
- 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 Master-Top 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 Master Builders Solutions 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 Master Builders Solutions flooring specialist.
- For increased abrasion resistance and UV stability, substitute MasterTop TC 421 UHW or MasterTop TC 693 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.
- 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.
- Make certain the most current versions of product data sheet and SDS are being used; visit 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.

LIMITED WARRANTY NOTICE

Master Builders Solutions Construction Systems US, LLC ("Master Builders") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but

²A troweling 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 Master Builders Solutions representative for additional information.

also upon many factors beyond our control. MASTER BUILDERS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser, MASTER BUILDERS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders' present knowledge and experience. However, Master Builders 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, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

FOR PROFESSIONAL USE ONLY. NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC.

