# **Technical Data Guide**





# MasterTop® 1215 AHS

Epoxy and polyurethane flooring system for aircraft hangars

#### FORMERLY AIRCRAFT HANGAR FLOOR SYSTEM

#### YIELD

Primer: 200 ft²/gallon (5 m²/L)
Base coat: 120 ft²/batch (3 m²/L)
First topcoat:
150 – 375 ft²/gallon (3.7 – 9.4 m²/L)
Second topcoat:

150 – 375 ft²/gallon (3.7 – 9.4 m²/L) All coverage rates are approximate. Coverage rates will vary with the desired texture and the porosity of the concrete.

#### **PACKAGING**

5 gallon (18.95 L) pails 55 gallon (208 L) drums <u>Pigment:</u> 1 Pint Can

# COLOR

Clear and 117 standard colors.
Custom colors are available on request.
Custom colors are subject to minimum quantities, increased manufacturing lead-times, and premium pricing. Refer to the Master Builders Solutions Performance Flooring Color Guide for more information.

#### SHELF LIFE

MasterTop Epoxy coatings: 2 years when properly stored.

MasterTop TC 421 UHW Polyurethane topcoat: 1 year when properly stored.

MasterTop TC 693 Polyaspartic topcoat: 1 year when properly stored.

#### STORAGE

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

# VOC CONTENT

See MasterTop 1215 AHS LEED Letter

#### DESCRIPTION

MasterTop 1215 AHS aircraft hangar floor system is a specially formulated epoxy and polyurethane or polyaspartic coating system. It forms a tough, UV-stable, abrasion-resistant flooring system specifically for use in aircraft hangars.

#### PRODUCT HIGHLIGHTS

- Excellent abrasion resistance, ideal for wheeled traffic
- Chemical and stain resistant for easy maintenance
- Glossy, light reflecting finish for increased visibility and a safer work environments

#### **APPLICATIONS**

 Where resistance to aircraft fuels, hydraulic fluids, and rubber tires is required



# TECHNICAL DATA COMPOSITION

Specially formulated products consisting of epoxy primer and base coats and polyurethane topcoats.

#### TEST DATA

| PROPERTY  | RESULTS           | TEST METHODS |
|---|-------------------|--------------|
| Adhesion, pli   | > 30              | ASTM D 903   |
| Hardness  | H pencil hardness | ASTM D 3363  |
| Salt spray, after 1,000 hours                             | No effect         | ASTM B 117   |
| Accelerated weathering, after 2,000 hours                 | No effect         | ASTM D 822   |
| Moisture vapor, perm inches                               | 0.01              | ASTM E 96    |
| Coefficient of friction                                   |                   | ASTM D 2047  |
| Dry   | 0.74              |              |
| Wet   | 0.73              |              |
| <b>Taber abrasion</b> , g loss; 1,000 cycles, CS-17 wheel | 0.038             | ASTM D 4060  |

Unless otherwise noted, test samples were cured 7 days at 73 °F (23 °C). Properties listed represent the complete system. For properties of individual coatings, refer to the appropriate technical data sheet.

# CHEMICAL RESISTANCE

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.
- 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 – 4 (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 could fracture the concrete
- 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<br>COMPONENTS   | MIX RATIO<br>BY VOLUME                |
|---|---------------------------------------|
| Primer<br>MasterTop GP 500  | 2 to 1                                |
| Base Coat MasterTop GP 500 Part A / BC 500HT Part MasterTop PGM 1000 pigment      | B<br>See table for<br>mixing ratio    |
| Topcoat MasterTop TC 421 UHW Part A / Part B or  MasterTop TC 693 Part A / Part B | 4 to 1<br>(optional part C)<br>1 to 1 |
| Consult the MasterTop Pigment Pack color information                              | chart for more                        |

2. If you are using the MasterTop PGM 1000 use the mixing ratio in the table.

| PRODUCT DESCRIPTION                             | PIGMENT LOADS |
|---|---------------|
| MasTop PGM 1000 White 1,932KG IP31              | 4 oz/ gallon  |
| MasterTop PGM 1000 Lt Gry 1,842KG IP31          | 4 oz/ gallon  |
| MasterTop PGM 1000 Md Gry 1,95KG IP31           | 4 oz/ gallon  |
| MasterTop PGM 1000 Btshp Gr 1,733KG IP31        | 2 oz/ gallon  |
| MasterTop PGM 1000 Tan 1,896KG IP31             | 1 oz/ gallon  |
| MasterTop PGM 1000 Charcoal 1,501KG IP31        | 1 oz/ gallon  |
| MasterTop PGM 1000 Deep Blue 1,102KG IP31       | 1/1.5 oz/gal  |
| MasterTop PGM 1000 Black 0,907KG IP31           | 2 oz/ gallon  |
| MasterTop PGM 1000 Bright Green 1,687KG IP31    | 4 oz/ gallon  |
| MasterTop PGM 1000 Safety Red 0,957KG IP31      | 6 oz/ gallon  |
| MasterTop PGM 1000 Safety Yellow 0,907KG IP31 * | 8 oz/ gallon  |

<sup>\*</sup> Apply over white

- Properly mix each component separately before mixing together to ensure uniform consistency.
- 4. 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.
- 5. 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 at 200 ft²/gallon (5 m²/L). Allow to cure.

#### APPLICATION

- 1. Add ½ gallon (1.26 L) of MasterTop MS 113F silica flour to each 1.5 gallon batch of mixed MasterTop GP 500 (1½ gallon batch (1 gallon PTA to ½ gallon PTB) with ⅓ gallon silica flour. Apply at a rate of 120 ft² (11.15 m²) / batch. Allow to cure.
- 2. Apply the mixed topcoat at 150 375 ft²/gallon (25.5 34.8 m²). Allow to cure.
- Apply a second topcoat, if required. The floor can be opened to traffic in 24 hours.

# DRYING TIMES

Primer: 12 – 24 hours Base coat: 12 – 24 hours

Polyurethane top coat: 18 – 24 hours

Polyaspartic top coat: 4-8 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.

# BEST PERFORMANCE

- An effective moisture vapor barrier is required for substrates on or below grade; if not present, contact your Master Builders Solutions representative for options.
- MasterTop 1215 AHS should be installed at a substrate temperature from 50 to 85 °F (10 to 30 °C).
- Do not expose MasterTop 1215 AHS to any chemicals until fully cured (7 days).
- Boxing batches is recommended to ensure color consistency
- The architect and owner should address joint details with the flooring contractor before the job starts.
- Master Builders Solutions representatives and flooring specialists are available to assist you in the selection of the proper flooring system. Call 1-800-243-6739 for in-house and field technical assistance.

- Use pads under vehicle wheels to reduce the possibility of tire-plasticizer migration.
- $\bullet$  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.
- 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.

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