

MASTERTOP® APS® 2021

Pigmented, slurry broadcast-applied floor system

DESCRIPTION:

The MASTERTOP® APS® 2021 floor system is a unique hybrid polymer blend of rapid-curing resins. It combines with granular aggregate for installation as a seamless 1/8" to 3/16" (3.2 mm to 4.8 mm) flooring system. The MASTERTOP APS 2021 system has good chemical resistance, cures quickly and has a minimal odor during placement and/or curing.

The MASTERTOP APS 2021 system provides unique curing capabilities that can significantly reduce downtime and contractor labor costs. The system is designed for commercial, light industrial and institutional floors that are prone to traffic abuse and liquid spills. Plus, the system offers surface texture flexibility: specifiers can utilize the system's mix design for effectivity as a slip resistant surface or to offer other surface texture value. The MASTERTOP APS 2021 system contains no solvents, has zero volatile organic compounds (VOCs) and is non-flammable, non-combustible and non-corrosive according to Department of Transportation (DOT) specifications.

RECOMMENDED FOR:

- Food & beverages facilities
- Commercial & institutional kitchens
- Light manufacturing & assembly facilities
- Grocery stores & restaurants
- Hospitals & educational facilities
- Quick installation in new or repair applications
- Aisles & other high traffic areas

FEATURES/BENEFITS:

- Fast cure rates
- Low odor allows installation in occupied facilities
- Non-flammable (*per DOT*)
- Non-combustible (*per DOT*)
- Non-corrosive (*per DOT*)
- Solvent free / 100% solids
- A variety of surface textures can be achieved
- Fast installation rates

TECHNICAL DATA:

Volatile Organic Compounds (VOC)	0 lbs/gal (0 gm/litre)
Compressive Strength, Mortar	
ASTM C 579; 24 hours	6,000 to 6,700 (41 to 46 MPa)
Tensile Strength, Binder	
ASTM C 638	5,000 to 8,000 psi (34 to 55 MPa)
Tensile Strength, Mortar	
ASTM C 307; 24 hours	2,300 to 2,500 (15 to 17 MPa)
Flexural Strength, Mortar	
ASTM C 580; 24 hours	5,500 to 6,000 (37 to 41 MPa)

Coefficient of Thermal Expansion

ASTM C 531 8.76 x 10⁻⁵ in/in/ °F

Tensile Elongation

ASTM D 638 5.785%

Impact Resistance

Gardner Direct; 24 hours >160 in/lb

Hardness, Shore D

ASTM D 2240 24 hours: 55 to 65; 7 days: 70 to 80

Bond Adhesion Strength

>350 psi (4,000 psi concrete)

Abrasion Resistance

ASTM D 4060;
Taber Method (1,000 cycles) 39 mg Weight Loss

Water Absorption

ASTM C 413 0.41%

Chemical Resistance

Consult your local Master Builders representative.

Shelf Life

12 months, if stored in original unopened container at 50°F to 70°F (10°C to 21°C).

GENERAL INFORMATION:

MASTERTOP APS 2021 COMPONENTS

- Part A: Hybrid Polymer, Pigmented Liquid
- Part B: Activator, Amber Liquid
- Part C: Broadcast Aggregate, Natural Color

COLORS

MASTERTOP APS 2021 is available in the following colors.

(1246) Light Grey	(1245) Medium Grey
(1211) Dark Grey	(1231) Tile Red
(1248) Beige	(1242) Country Blue

Contact Master Builders for information on custom colors.

MIXED MATERIAL @ 72°F (22°C)

Working Time:	15 to 20 minutes
Cure Time for foot traffic:	4 to 6 hours
Cure Time for vehicle traffic:	24 hours

ESTIMATING:

MASTERTOP APS 2001PRIMER

MASTERTOP APS HYBRID POLYMER #2/Part A

Part A: .62 gal(2.35 litre)

Packaging: Short filled 2.6 gal (9.85 litre) plastic can

MASTERTOP APS ACTIVATOR #2/Part B

Part B: .31 gal(1.17 litre)

Packaging: .5 gal(1.9 litre) plastic bottle

MASTERTOP APS 2021 UNIT

MASTERTOP APS 2021 Hybrid Polymer #1/Part A

- Part A: .68 gal (2.58 litre)
- Packaging: Short filled 2.6 gal (9.85 litre) plastic can

MASTERTOP APS 2021 Activator #1/Part B

- Part B: .31 gal (1.17 litre)
- Packaging: .5 gal (1.9 litre) plastic bottle

COVERAGE RATES (Approximate)

- MASTERTOP APS 2001 PRIMER Unit
125 to 175 ft²/unit (11.6 to 16.3 m²/unit)
- MASTERTOP APS 2021 Unit
35 ft²/unit at 1/8" (3.3 m²/unit at 3.1 mm)
- AGGREGATE (LOCALLY SOURCED)
100 to 120 lbs (45.0 to 54.0 kg) 35 to 60 mesh sand/unit

Approx. amounts for a nominal 1/8" (3.2 mm) floor.

SURFACE PREPARATION PROCEDURES:

Concrete must be thoroughly cured, free of oils, grease, dust, dirt, curing compounds and mold release agents. Grit blast, scarify or mechanically abrade substrate to remove laitance, loose material and surface contamination. Concrete substrate surface must be dry at time of application and throughout curing to ensure proper bond.

PRODUCT USAGE INSTRUCTIONS:

Mix MASTERTOP APS 2001 hybrid polymer and MASTERTOP APS 2001 activator separately prior to blending.

Prime: Mechanically mix MASTERTOP APS 2001 Activator into MASTERTOP APS 2001 Hybrid Polymer for 60 seconds and immediately pour all material onto concrete surface and spread using spring steel trowel, roller and/or squeegee. Material should be placed evenly at thicknesses of approximately 5 to 7 mils (0.125 to 0.175 mm) and lightly seeded with 10 lbs per 100 ft² (4.5 kg per 9.3 m²) of aggregate. Allow material to cure 30 to 60 minutes and vacuum away loose particles of aggregate.

Body Coat: Mix MASTERTOP APS 2021 HYBRID POLYMER and ACTIVATOR as stated above. Add 60 to 80 lbs. of 35 to 60 mesh clean, dry sand to the mixed material, mechanically stirring for at least 60 seconds. Pour contents onto the primed floor surface. Using a notched squeegee, move the MASTERTOP APS 2021/sand mixture to create an even distribution of material 3/32" to 1/8" (2.4 mm to 3.2 mm) in thickness. Spray or hand broadcast aggregate to excess [approximately 40 lbs per 100 ft² (18 kg per 9.3 m²)]. Allow material to cure 4 to 6 hours.

Grout/Finish Coat: Mix material as stated above and apply using spring steel trowel and/or squeegee at approximately 10 mils (0.25 mm). [Optionally back roll to level material with 3/16" or 1/4" (4.8 or 6.4 mm) nap roller.] A single grout/finish coat pulled tightly with a squeegee can result in a surface textured finish, while a grout/finish coat pulled loosely with finish trowel can provide a less surface textured finish with more gloss.

Optional: Light sanding or scraping of the surface before the grout coat will reduce protruding aggregate particles, lessen surface texture and increase the gloss of the finished floor. Surface texture and floor samples should be discussed with the customer prior to beginning the installation of the floor.

Note: This is a fast curing product that will react quicker in mass than in thin film. To maximize the working time of the material, it is recommended that once mixed the material be poured onto the floor as quickly as possible. The "dip & roll" application method used in other polymer floor applications is NOT recommended for the MASTERTOP APS 2021 system. Pour all of the mixed material from the bucket in thin "ribbons" and then spread evenly on the surface using spring steel trowel or squeegee. Do not leave mixed material in bulk in the pail.

CLEAN UP:

Hand tools and power equipment can be cleaned with solvent-based industrial cleaning solution prior to material hardening.

LIMITATIONS:

- Surface and air temperatures must be at least 50°F (10°C) during installation and initial cure.
- Material must be stored in a cool, dry area [50°F to 70°F (10°C to 21°C)], away from direct sunlight, flame or other hazards.
- Movement of sub-floor cracks may transmit through flooring.
- An effective vapor barrier is required beneath substrates in contact with ground.
- Adequate ventilation must be ensured (according to OSHA standards).

SAFETY PRECAUTIONS:

This product should only be used by qualified personnel for recommended applications in accordance with current, published installation guidelines. Please review MSDS sheets prior to placing any material and/or for specific product information.

Master Builders, Inc.

United States

23700 Chagrin Boulevard
Cleveland, Ohio 44122-5554
(800) MBT-9990
Fax (216) 831-6910

Canada

3637 Weston Road
Toronto, Ontario M9L 1W1
(800) 387-5862
Fax (416) 741-7925

Mexico

Blvd. M. Avila Camacho 80, 3er Piso
53390 Naucalpan, México
011-525-557-5544
Fax 011-525-395-7903