

MasterSeal[®] Pedestrian Traffic 2000

Polyurethane waterproofing, traffic-bearing membrane systems for pedestrian areas

FORMERLY CONIPUR[®] II PLUS

PACKAGING

- MasterSeal M 200
- 5-gallon (18.93 L) pails
- 55-gallon (208.2 L) drums
- MasterSeal TC 275
- 4.78-gallon (18.1 L) unitized kit
- MasterSeal TC 295
- Part A: 1.75 gallons (6.62 L) in 6-gallon (22.71 L) pail
- Part B: 3.5-gallon (13.25 L) pail
- MasterSeal 941 Aggregate
- 50-lb (22.68 KG) bag
- MasterSeal 941DR Aggregate
- 50-lb (22.72 KG) bag
- MasterSeal 945 Aggregate
- 40-lb (18.14 KG) bag
- MasterSeal P 220
- 4 gallons (15.14 L) in 5-gallon (22.71 L) pail
- MasterSeal P 222
- 5-gallon (18.93 L) pails

SHELF LIFE

When properly stored, MasterSeal products have the following shelf life:

- MasterSeal M 200: 1 year
- MasterSeal TC 275: 1.25 years
- MasterSeal TC 295: 1 year
- MasterSeal 941: 5 years
- MasterSeal 941DR: 5 years
- MasterSeal 945: 5 years
- MasterSeal P 220: 1 year
- MasterSeal P 222: 1.5 years

STORAGE

Store in unopened containers in a cool, clean, dry area

YIELD

See preferred MasterSeal Deck Coating Solution for total system yield.

COLOR

- TC 275: Grey, Charcoal & Black
- TC 295: Grey, Charcoal & Tint Base

DESCRIPTION

MasterSeal Pedestrian Traffic 2000 is a primerless system consisting

- MasterSeal M 200, a one-component, moisture-curing polyurethane
- MasterSeal TC 275 – a two-component fast curing aromatic polyurethane top coat
- MasterSeal TC 295 – a high performance, two-component, aliphatic, polyaspartic-modified, high solids, polyurethane waterproofing coating

For projects requiring aggregate, three options are available:

- MasterSeal 941, a hard-wearing, angular aggregate
- MasterSeal 941DR, an aggregate free of respirable crystalline silica
- MasterSeal 945, an aggregate free of respirable crystalline silica for integrated top coats

For projects specifying primer, two choices are available:

- MasterSeal P 220, a two-component, waterborne epoxy primer and sealer
- MasterSeal P 222, a one-component, solvent-based primer and sealer

PRODUCT HIGHLIGHTS

- Primerless system reduces labor and material costs
- MasterSeal 941DR aggregate is free of respirable crystalline silica
- MasterSeal 945 aggregate is pre-mixed with MasterSeal top coats to reduce labor and material costs
- Meets EPA national requirements for VOC
- Fast turnaround reduces facility downtime
- Seamless waterproof membrane protects concrete from freeze/thaw damage; protects occupied areas below from water damage; has no seams that may result in leaks
- Excellent chloride resistance protects against chloride intrusion, extending the life of reinforced steel
- Excellent chemical resistance to protect against common parking deck chemicals including gasoline, diesel fuel, oil, alcohol, ethylene glycol, de-icing salt, bleach and cleaning agents
- Skid resistant for increased safety; offers excellent durability and superior abrasion resistance
- Versatile system can be used for interior or exterior applications, above grade and elevated concrete slabs

- 40 standard colors utilizing MasterSeal 900 color packs available for MasterSeal TC 295 Tint Base

INDUSTRIES/SECTORS

- Stadiums
- Parking Garages
- Plaza Decks
- Building and Restoration
- Balconies (Plywood)

VOC CONTENT

MasterSeal components have the following g/L VOC contents less water and exempt solvents:

- MasterSeal P 220: 400 g/L
- MasterSeal P 222: 335 g/L
- MasterSeal M 200: 196 g/L (self-leveling) 203.3 g/L (flash/slope)
- MasterSeal TC 275 Part A: 71 g/L
- MasterSeal TC 275 Part B: 13 g/L
- MasterSeal TC 295 Part A: 20 g/L
- MasterSeal TC 295 Part B: 174 g/L

Technical Data

Composition

MasterSeal PedestrianTraffic 2000 is a polyurethane waterproofing, traffic-bearing membrane system.

Compliances

- CSA S413
- ASTM C 957



Issued to: BASF Corporation
Product: MasterSeal Traffic 2500

ASTM D 412: Tensile Strength of Top Coat
MasterSeal TC 275 Top Coat: Tensile Strength: 2,600 psi;
Elongation: 26%
MasterSeal TC 295 Top Coat: Tensile Strength: 3,200 psi;
Elongation: 410% Pass ✓

ASTM D 4541: Adhesion of Base Coat
MasterSeal M 265 w/ Primer P 255
Pull-off Adhesion: 400 psi + Pass ✓

ASTM D 4060: Abrasion Resistance of Top Coat
MasterSeal TC 275 Top Coat: Abrasion Resistance:
135 mgms loss – mgms loss/1,000 cycles
MasterSeal TC 295 Top Coat: Abrasion Resistance:
57 mgms loss – mgms loss/1,000 cycles Pass ✓

Validation Date: 3/1/18-2/28/23

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DECK COATING VALIDATION
www.swrionline.org

Test Data

PROPERTY	RESULTS			TEST METHOD
	M 200	TC 275	TC 295	
Solids				ASTM D 1259
By weight, %	84	96	91	
By volume, %	81	93.5	91	
Viscosity, cps	4,000–9,000	1,600	2,500–4,000	ASTM D 2393

*Uncured material

PROPERTIES OF CURED MEMBRANES

PROPERTY	RESULTS M 200	TC 295		TEST METHOD
		TC 275	PRE-PIGMENTED / TINT BASE	
Hardness, Shore A	60	–	–	ASTM D 2240
Hardness, Shore D	–	94	94/90	ASTM D 2240
Tensile strength, psi (MPa)	752 (5.2)	3000	3400/300	ASTM D 412
Elongation, %	595	30	340/390	ASTM D 412
Adhesion in peel after water immersion, pli,				
Primed mortar	43	48	N/A	5
Plywood	34	26	N/A	5
Adhesion (Pull-off), psi				
Base Coat	275	N/A	N/A	ASTM D 4541

PROPERTY	RESULTS	TEST METHOD
Taber Abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles Primer/Basecoat/275 Topcoat	100	ASTM D4060
Taber Abrasion resistance, mgms; 100 ASTM D4060 CS-17 Wheel, 1,000 g load, 1,000 cycles Basecoat/275 intermediate/295 topcoat	47	ASTM D4060

MASTERSEAL AGGREGATES

PROPERTY	941 RESULTS	941 DR RESULTS	945 RESULTS
Color	Gray	Green to Gray	Green to Gray
Compressive Strength	28,000 psi		
Hardness	6–6.5 Mohs	7 Mohs	7 Mohs
Specific Gravity	2.90 g/cc	3.3 g/cc	3.3 g/cc
Bulk Density	102 pcf	85 to 105 pcf	85 to 105 pcf
US SIEVE SIZE	% RETAINED ON SIEVE		
#6			
#12	71	2–10	
#16	23	10–30	
20	2	20–35	
30	1	20–40	0–3
40	0	7–22	10–25

HOW TO APPLY

SURFACE PREPARATION CONCRETE

1. Concrete must be fully cured (28 days), structurally sound, clean and dry (ASTM D 4263). All concrete surfaces (new and old) must be shot blasted to remove previous coatings, laitance and all miscellaneous surface contamination and to provide profile for proper adhesion. Abrasive shot blasting must occur after concrete repair has taken place. Acid-etching is not permitted. Proper profile should be a minimum of ICRI CSP-3 (as described in ICRI document 03732.)
2. Repair voids and delaminated areas with Master Builders Solutions branded cementitious and epoxy patching materials. For application when fasture repairs are required, MasterSeal 350 can be used to repair patches up to 1.5" in depth when used in aggregate slurry mix. Please refer to the MasterSeal 350 Technical Data Guide for proper application techniques.
3. All units must be applied within the specified pot life.

SURFACE PRE-STRIPPING AND DETAILING

1. For nonmoving joints and cracks less than $\frac{1}{16}$ " (1.6 mm) wide, apply primer when required, followed by 25 wet mils (0.6 mm) pre-stripping of Base Coat. The Base Coat must be applied to fill and overlap the joint or crack 2" (51 mm) on each side. Feather the edges.
2. Dynamic cracks and joints $\frac{1}{16}$ " (1.6 mm) and greater wide must be routed to a minimum of $\frac{1}{4}$ " by $\frac{1}{4}$ " (6 by 6 mm) and cleaned. Install bond breaker tape to prevent adhesion of sealants to the bottom of joint. Prime joint faces only with MasterSeal P 173 (see Form No. 1017962). Fill joints deeper than $\frac{1}{4}$ " (6 mm) with appropriate backer-rod and MasterSeal SL 2 (slope grade or self-leveling) or NP sealants (see Form Nos. 1017903 and 1017911). For cracks, sealant should be flush with the adjacent concrete surface. For expansion joints, sealant should be slightly concave. Once the sealant is cured the lines should be prestriped with base coat MasterSeal M 200.
3. Sealed joints 1" (25 mm) or less can be coated over with MasterSeal M 200. Expansion joints exceeding 1" (25 mm) wide should not be coated over with MasterSeal M 200 so that they can perform independently of the deck coating system.

4. Cut a $\frac{1}{4}$ by $\frac{1}{4}$ " (6 by 6 mm) keyway into the concrete where the coating system will be terminated if no wall, joint, or other appropriate break exists.
5. Form a sealant cant into the corner at the junction of all horizontal and vertical surfaces (wall sections, curbs, columns). Prime with MasterSeal P 173 and apply a $\frac{1}{2}$ -1" (13-25 mm) wide bead of MasterSeal NP 1 or MasterSeal NP 2 sealants. Tool to form a 45° cant.
6. In locations of potential high movement, such as wall and slab intersections, apply 25 wet mils (0.6 mm) of MasterSeal M 200 and embed MasterSeal 995 fabric.

UNCOATED METAL SURFACES

Remove dust, debris, and any other contaminants from vent, drain pipe, and post penetrations, reglets and other metal surfaces. Clean surfaces to near white per SSPC-NACE2 and prime immediately with MasterSeal P 173. Provide appropriate cant with MasterSeal NP 1 or MasterSeal NP 2 sealants to eliminate 90° angles.

PLYWOOD

1. All plywood must be smooth-faced, APASTamped, and exterior grade tongue and groove plywood. Construction must conform to code, but plywood must not be less than $\frac{23}{32}$ " (18 mm) thick. Plywood spacing and deck construction must follow APA guidelines.
2. Surfaces must be free of contaminants. Priming is not necessary on clean, dry plywood.
3. All seams must be caulked with MasterSeal NP 1 or MasterSeal NP 2 sealants (see Form Nos. 1017906 and 1017911). Prestripe 4-6" (102-152 mm) wide with 25 wet mils (0.6 mm) of Base Coat. Reinforce all seams between plywood sheets and between flashing and the plywood deck by embedding MasterSeal 995 into the pre-stripping.

HOW TO APPLY

COLOR – MASTERSEAL TC 295 TINT BASE

1. All of the 40 standard colors from the MasterSeal Color Portfolio require the use of 2 MasterSeal 900 color packs per 5.25-gallon pail of MasterSeal TC 295 Tint Base.
2. A second aesthetic Top Coat of 10-15 wet mils (0.2-0.4 mm) is required with all Tint Base colors to achieve a uniform appearance.

MIXING – MASTERSEAL P 220 / P 222

1. Precondition material to a temperature of approximately 70 °F (21 °C).
2. Pre-mix material for 3 minutes before use.

MIXING – MASTERSEAL M 200

1. Precondition material to a temperature of approximately 70 °F (21 °C).
2. Pre-mix material for 3 minutes before use.

MIXING – MASTERSEAL TC 275 / 295 (PRE-PIGMENTED)

1. Precondition both A and B components to a temperature of approximately 70 °F (21 °C).
2. Add entire contents of Part A into Part B. Mix components with a slow-speed drill (400-600 rpm, for a minimum of 3 minutes. Scrape down sides and bottom of mixing vessel, then mix again for 2 minutes. Keep the mixing paddle submerged during mixing to avoid adding air into the mixture.

MIXING – TC 295 TINT BASE

1. Precondition both A and B components to a temperature of approximately 70 °F (21 °C).
2. Add entire contents of Part B into Part A. Mix components with a slow-speed drill (400-600 rpm, for a minimum of 3 minutes.
3. Transfer entire contents of two (2) pigment cans into MasterSeal TC 295 Tint Base mixed kit. Use a spatula or knife to remove all the pigment from the container. The TC 295 Tint Base Top Coat requires two (2) MasterSeal 900 color packs per 5.25-gallon pail.
4. Scrape down sides and bottom of mixing vessel, then mix again for 2-3 minutes. Keep the mixing paddle submerged during mixing to avoid adding air into the mixture.
5. To ensure consistent color throughout the pail, pour contents into separate container and continue mixing until all Tint Base has dispersed.
6. When using multiple units, all units must be boxed to ensure color consistency.

PRIMING

NOTE: When primer is required on a job, follow these steps. When applying MasterSeal Pedestrian Traffic 2000 without using a primer, proceed to Application.

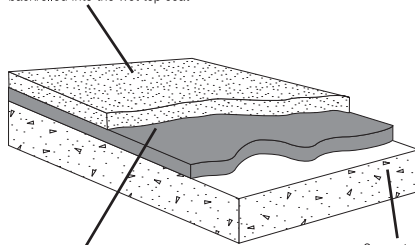
1. After thoroughly vacuuming the surface, apply MasterSeal P 222 or MasterSeal P 220 to all the properly prepared deck surfaces at the rate of 200–250 ft²/gallon (4.9–6.1 m²/L). Using a roller pan and a short- to medium-nap roller cover, force the primer into pores and voids to eliminate pinholes. Do not apply over pre-stripping. Use only solvent-resistant tools and equipment.
2. Allow primer to dry tack free. Base Coat must be applied the same working day.

APPLICATION

- All preparatory work must be completed before application begins. Be certain the substrate is clean, dry, stable, and properly profiled. Sealants and pre-stripping should be properly cured. Apply the base, mid, and finish coats with a properly sized squeegee to arrive at the required mil thicknesses.
- The best method to ensure the proper wet film thickness is the use of a grid system. Divide the surface to be coated into grids and calculate the square footage of each. Refer to the coverage chart to determine the quantity of MasterSeal Pedestrian Traffic 2000 needed for each grid to arrive at the required mil thicknesses. For example, one pail of MasterSeal M 200 will cover an area approximately 300 ft² (28 m²), or a grid 30 by 10 ft (9 by 3 m) at 25 wet mils (0.6 mm). The mil thickness of all coats can also be verified by the use of a wet-mil thickness gauge. Coverage rates may vary depending on the texture of the substrate or coating below
- Extend the curing time in cool or dry weather conditions. The surface of the base coat should have a slight tack. If the coating has been exposed for a prolonged period, consult Technical Service for recommendations.
- MasterSeal Pedestrian Traffic 2000 can be applied using several methods, depending upon the degree of traffic to which the system is exposed. In areas of extreme traffic (turning lanes, pay booths, entrances and exits), apply the Extra Heavy-Duty Traffic System per the MasterSeal Vehicular Traffic 2000 data guide. The following summary briefly describes each method. All coverage rates are approximate.

PEDESTRIAN

MasterSeal TC 275 (15 wet mils) or TC 295 (15 wet mils) with MasterSeal 941 or equivalent broadcast and backrolled into the wet top coat



MasterSeal M 200 or M 205 (25–30 wet mils)

PEDESTRIAN SYSTEMS

1. Apply 25–30 wet mils (0.6–0.8 mm) (20–30 dry mils) of MasterSeal M 200 with a proper notched squeegee at the rate of approximately 50–60 ft²/gallon (1.5 m²/L). Immediately backroll to level base coat. Allow to cure overnight.
 2. Apply 15–20 wet mils (0.38–0.64 mm) of MasterSeal TC 275/295 Top Coat at the rate of approximately 80–100 ft²/gallon (2.4 m²/L).
- 3A. BROADCAST AND BACKROLL METHOD**
Immediately broadcast MasterSeal 941/941DR aggregate or equivalent 16–30 rounded silica sand at the rate of 10–15 lbs/100 ft² (0.5–0.75 kg/m²) into wet MasterSeal TC 275/295 and back roll to encapsulate.
- 3B. INTEGRATED AGGREGATE**
After mixing the top coat per instructions, pour half of the mixed material into a second pail. Add 20 lbs of MasterSeal 945 aggregate to one half of the mixed material (2.4 gallons of TC 275 and 2.63 gallons of TC 295). Mix for an additional 3 minutes for uniform consistency. Apply the topcoat at 20 wet mils or 80 sf/gallon with 1/8" notch squeegee. Fully saturate the roller. Backroll with 3/8" nap roller, roll in a crosshatch pattern for equal distribution of aggregate. Repeat for second half of top coat. For vehicular use, a second coat is required. Pail will need to be remixed for 2 minutes after 10 minutes of idle sitting to redistribute the aggregate.- 4. Allow minimum curing time of 24–48 hours curing time before allowing vehicular traffic onto the coating. Existing environmental conditions effect the allowable time period.

MOCKUP

1. Provide mockup of at least 100 ft² (9.3 m²) to include surface profile, sealant joint, crack, flashing and juncture details and allow for evaluation of slip resistance and appearance.
2. Install mockup with specified coating types and with other components noted.
3. Locate where directed by architect.
4. Mockup may remain as part of work if acceptable to architect.

CLEAN UP

Clean all tools and equipment immediately after use with MasterSeal 990 or xylene. Cured material must be removed mechanically.

CURING TIME

Allow curing time of 72 hours before vehicular use. Extend the curing time in cool-weather conditions. To reduce the time period in which MasterSeal PedestrianTraffic 2000 might be vulnerable to inclement weather or to reduce the time between coats, use MasterSeal 914.

MAINTENANCE

See MasterSeal Traffic maintenance technical bulletin

FOR BEST PERFORMANCE

- MasterSeal NP 100 and MasterSeal NP150 should not be used in conjunction with this urethane deck coating system due to potential for curing issues.
- If vapor drive is present or suspected, please consult with your local Master Builders Solutions representative prior to system application.
- MasterSeal TC 275/295 has very short working times (20 min ± 5 at 70 °F 50% RH). Once the material has been mixed, the coating must be poured onto the surface and applied immediately.
- MasterSeal TC 275 will discolor if exposed to UV light. Where UV resistance is required, the application of TC 295 is recommended.
- Minimum application temperature is 40 °F (4 °C).
- If areas of inadequate slip resistance exist, an additional top coat back rolled with aggregate is required.
- Do not apply to concrete that is outgassing.

- Warm temperatures will shorten working time; plan work accordingly.
- Concrete should have a minimum compressive strength of 3,000 psi (21 MPa) and be cured for a minimum of 28 days.
- Do not apply MasterSeal Pedestrian Traffic 2000 to concrete slabs on grade, unvented metal pan decks or split slab applications with a waterproofing membrane between slabs. Contact Master Builders Solutions Technical Services.
- Be sure to allow for movement in the deck by the proper design and use of expansion and control joints.
- Select the proper type and amount of aggregate to achieve desired slip resistance.
- Contact Technical Service when substrates are over 90 °F (32 °C) or under 40 °F (4 °C) or when applying to decks containing between-slab membranes.
- Avoid application when inclement weather is present or imminent.
- Do not apply to damp, wet, or contaminated surfaces.
- Not suitable for use where chained or metalstudded tires will be used.
- 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.
- On steep ramps in excess of 15%, contact your local Master Builders Solutions representative. Do not use self-leveling grade product on slopes greater than 15%. Do not coat expansion joints over 1" (25 mm) wide.
- Do not apply use pre-mixed, integrated MasterSeal 945 aggregate in heavy- or extra heavy-duty vehicular applications.

FOR BEST PERFORMANCE: TC 295 TINT BASE ONLY

- Avoid whipping air into Tint Base.
- Mix pigment cans thoroughly into Tint Base.
- Always do a test area to assure acceptable color appearance and slip resistance.
- Do not apply MasterSeal TC 295 Tint Base heavier than the recommended 15–20 mil (0.38–0.51 mm) application.
- Colors exposed to direct sunlight may fade over a period of time. Darker colors potentially fade at an increased rate.
- Aggregate and substrate conditions may affect color and appearance.

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

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