

MasterSeal[®] Traffic 2000

Polyurethane waterproofing, traffic-bearing membrane systems for vehicular and pedestrian areas

FORMERLY CONIPUR[®] PLUS

PACKAGING

MasterSeal M 200:

- 5 gallon (18.93 L) pails
- 55 gallon (25 kg) drums

MasterSeal TC 275: 4.78 gallon (18.1 L) kit

MasterSeal TC 295: 5.25 gal (19.8 L) kit

STORAGE

Store in unopened containers in cool, clean, dry area

SHELF LIFE

1 year when properly stored

VOC CONTENT

MasterSeal M 275 Part A:

71 g/L less water and exempt solvents, when components are mixed

MasterSeal M 275 Part B:

13 g/L less water and exempt solvents, when components are mixed

MasterSeal M 295 Part A:

1 g/L less water and exempt solvents when components are mixed and applied per BASF instructions

MasterSeal M 295 Part B:

0 g/L less water and exempt solvents when components are mixed and applied per BASF instructions

MasterSeal M 200:

Self-leveling: 196 g/L

Flash/slope: 203.3 g/L

less water and exempt solvents

DESCRIPTION

MasterSeal Traffic 2000 consists of:

- MasterSeal M 200, a one-component, moisture-curing polyurethane.
- MasterSeal TC 275 – a two-component fast curing aromatic polyurethane top coat with outstanding mechanical properties, including high tensile strength, and excellent tear and abrasion resistance.
- MasterSeal TC 295 – a high performance, two component, aliphatic, polyaspartic modified, high solids, polyurethane waterproofing coating for use as an intermediate/topcoat for the MasterSeal Traffic 2000 and MasterSeal Traffic 2500 deck coating systems

PRODUCT HIGHLIGHTS

- MasterSeal 941DR aggregate is free of respirable crystalline silica
- Meets EPA national requirements for VOC
- Fast turnaround reduces facility downtime
- Primerless system reduces labor and material costs
- 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

APPLICATIONS

- Interior or exterior, above grade
- Mechanical rooms
- Balconies
- Plaza decks
- Elevated concrete slabs
- Plywood decks/balconies

INDUSTRIES/SECTORS

- Stadiums
- Parking Garages
- Commercial Construction
- Building and Restoration

Technical Data

Composition

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

Compliances

- CSA S413
- ASTM C 957

Test Data

PROPERTY	RESULTS M 200	TC 275	TC 295	TEST METHOD
Solids,				ASTM D 1259
By weight, %	84	96	90	
By volume, %	81	93.5	90	
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 275	TC 295	TEST METHOD
Hardness, Shore A	60	–	–	ASTM D 2240
Hardness, Shore D	–	70	92	ASTM D 2240
Tensile strength, psi (MPa)	752 (5.2)	3000	3,000	ASTM D 412
Elongation, %	595	30	250	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; CS-17 Wheel, 1,000 g load, 1,000 cycles Basecoat/275 intermediate/295 topcoat	82	ASTM D4060



SEALANT-WATERPROOFING & RESTORATION INSTITUTE

Issued to: BASF Corporation
Product: MasterSeal Traffic 2000

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 200 Base Coat
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

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.) For balconies and other pedestrian areas with limited space or access for shot-blasting, alternative mechanical methods can be used to achieve the recommended surface profile.
2. Repair voids and delaminated areas with BASF branded cementitious and epoxy patching materials. For application when fast-turn 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 Sonoshield Reinforcing 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, APA-stamped, and exterior grade tongue and groove plywood. Construction must conform to code, but plywood must not be less than $2\frac{3}{8}$ " (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). Prestrip 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.

PRIMING

NOTE: When primer is required on a job, follow these steps. When applying MasterSeal 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.

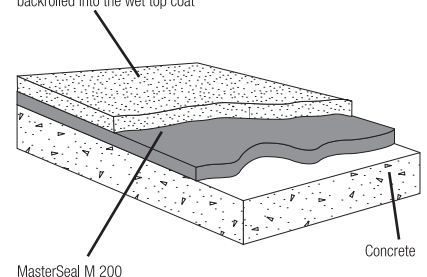
2. Allow primer to dry tack free. Base Coat must be applied the same working day.

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 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 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. The following summary briefly describes each method. All coverage rates are approximate.

LIGHT TRAFFIC AND PARKING STALLS

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

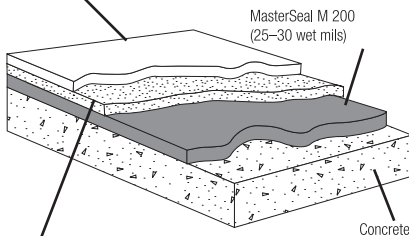


LIGHT TO MEDIUM DUTY TRAFFIC STALLS

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).
3. 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.
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.

HEAVY TRAFFIC

MasterSeal TC 275 (15 wet mils) or MasterSeal TC 295 (15 wet mils)



MasterSeal TC 275 (15 wet mils). MasterSeal 941 or equivalent is broadcast then backrolled into the wet mid coat.

HEAVY DUTY TRAFFIC SYSTEM

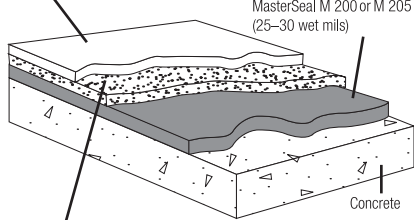
1. Apply 25–30 wet mils (0.6–0.8 mm) of MasterSeal M 200 with a proper notched squeegee at the rate of approximately 50–60 ft²/gallon (1.3–1.5 m²/L). Immediately backroll to level base coat. Allow to cure overnight.
2. Apply 15 mils (0.4 mm) of MasterSeal TC 275/295 intermediate topcoat using a properly notched squeegee at the rate of approximately 100 ft²/gal. (2.5 m²/L). Immediately back roll to evenly level Topcoat. The next step, #3, can utilize either method described in 3A or 3B.
- 3A. **AGGREGATE TO REFUSAL METHOD**
 Immediately broadcast MasterSeal 941/941DR aggregate or equivalent 16–30 mesh, rounded silica sand into the wet coating at the rate of 20–25 lbs per 100 ft² (1.0–1.25 kg/m²). Immediately after the aggregate broadcast and

while the coating is still wet, blow any excess aggregate via a portable blower forward into the wet coating. Do not over apply aggregate; it is acceptable to have localized wet spots in the aggregate surface after completion of this method. This process requires coordination between all members in the work crew. The blower operator, wearing clean spiked shoes, should blow the excess aggregate forward towards the freshly applied and back rolled topcoat. In this method, the coating should not accept additional sand, minimal excess aggregate is on the surface, less aggregate is used and the textured appearance should be fairly uniform.

- 3B. **BROADCAST AND BACKROLL METHOD**
 Immediately broadcast MasterSeal 941/941DR or equivalent 16–30 mesh, rounded silica sand into the wet coating and back roll to encapsulate the aggregate. Evenly broadcast aggregate at the rate of 10–15 lbs per 100 ft² (0.5–0.75 kg/m²).
4. Remove all excess or loose aggregate by sweeping or vacuuming.
5. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Apply 15–20 wet mils (0.38–0.64 mm) of MasterSeal TC 275/295 at the rate of 60–100 ft²/gal (1.5–2.5 m²/L) using a flat squeegee. Immediately back roll to evenly level top coat.
6. Immediately broadcast MasterSeal 941/941DR or equivalent at the rate of 3–5 lbs/100 ft² (0.15–0.25 kg/m²). Lightly backroll into top coat.
7. Allow minimum curing time of 24–48 hours before allowing vehicular traffic onto the coating. Existing environmental conditions effect the allowable time period.

EXTRA HEAVY-DUTY TRAFFIC SYSTEM (Aggregate to Refusal Method)

MasterSeal TC 275 (15 wet mils) or MasterSeal TC 295 (15 wet mils)



MasterSeal TC 275 (20 wet mils). MasterSeal 941 to refusal

EXTRA HEAVY DUTY SYSTEM

1. Apply 25–30 wet mils (0.6–0.8 mm) of MasterSeal M 200 with a proper notched squeegee at the rate of approximately 50–60 ft²/gallon (1.3–1.5 m²/L). Immediately back roll to level base coat. Allow to cure overnight.
2. Apply 20–25 wet mils (0.51–0.64 mm) of MasterSeal TC 275/295 intermediate topcoat using a properly notched squeegee at the rate of approximately 60–80 ft²/gal. (1.5–2.0 m²/L). Immediately back roll to evenly level topcoat. The next step, #3, can utilize either method described in 3A or 3B.
- 3A. **AGGREGATE TO REFUSAL METHOD**
 Immediately broadcast MasterSeal 941/941DR or equivalent 16–30 mesh, rounded silica sand into the wet coating at the rate of 25–35 lbs per 100 ft² (1.25 – 1.75 kg /m²). Immediately after the aggregate broadcast and while the coating is still wet, blow any excess aggregate via a portable blower forward into the wet coating. Do not over apply aggregate; it is acceptable to have localized wet spots in the aggregate surface after completion of this method. This process requires coordination between all of the members in the work crew. The blower operator, wearing clean spiked shoes, should blow the excess aggregate forward towards the freshly applied and back rolled topcoat. In this method, the coating should not accept additional sand, minimal excess aggregate is on the surface, less aggregate is used and the textured appearance should be fairly uniform.
- 3B. **BROADCAST AND BACKROLL METHOD**
 Immediately broadcast MasterSeal 941/941DR or equivalent 16–30 mesh rounded silica sand into the wet coating and back roll to encapsulate the aggregate. Evenly broadcast aggregate at the rate of 13–20 lbs per 100 ft² (0.83–1.0 kg/m²).
4. Remove all excess or loose aggregate by sweeping or vacuuming.
5. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Apply 15–20 wet mils (0.38–0.64 mm) of MasterSeal TC 275/295 at the rate of 80–100 ft²/gal (1.5–2.5 m²/L) using a flat squeegee. Immediately back roll to evenly level top coat.
6. Immediately broadcast MasterSeal 941/941DR or equivalent at the rate of 3–5 lbs/100 ft² (0.15–0.25 kg/m²). Lightly back roll into top coat.
7. Allow minimum curing time of 24–48 hours before allowing vehicular traffic onto the

coating. Existing environmental conditions effect the allowable time period.

IMPORTANT NOTE: All coverage rates are approximate and may vary due to the application technique used. Coverage rates are affected by substrate texture, choice and distribution of aggregate, environmental conditions and application methods and are not under the control of BASF. Ensure that an adequate amount of aggregate is utilized to achieve required slip resistance. Exterior applications must utilize MasterSeal TC 295 at the specified coverage rate of 15–20 wet mils.

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.

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 BASF 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 Traffic 2000 to concrete slabs on grade, unvented metal pan decks or split slab applications with a waterproofing membrane between slabs. Contact BASF 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 metal-studded tires will be used.
- 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.
- On steep ramps in excess of 15%, contact your local BASF representative. Do not use self-leveling grade product on slopes greater than 15%. Do not coat expansion joints over 1" (25 mm) wide.

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.**

LIMITED WARRANTY NOTICE

BASF 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 also upon many factors beyond our control. BASF 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 the replacement of product or refund of the purchase price, at the sole option of BASF. 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. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

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