

MasterSeal® Vehicular Traffic 2530 Primerless

High-solids epoxy/polyurethane waterproofing,
traffic-bearing membrane systems for vehicular areas

PACKAGING

- MASTERSEAL M 270
- 4.66-gallon (17.64 L) pail
- MASTERSEAL 350
- 10-gallon (38 L) kit
 - 110-gallon (412 L) kit
 - 550-gallon (2,082 L) 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 940 AGGREGATE
- 50-lb (22.68 KG) bag
- MASTERSEAL 940DR AGGREGATE
- 50-lb (22.72 KG) bag

SHELF LIFE

MasterSeal M 270:	1 year
MasterSeal 350:	2 years
MasterSeal TC 295:	1 year
MasterSeal 940:	5 years
MasterSeal 940DR:	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

350: Clear/Amber
TC 295: Grey, Charcoal & Tint Base

DESCRIPTION

MasterSeal Vehicular Traffic 2530 Primerless is a fluid-applied epoxy/polyurethane waterproofing system using fast-setting, two-component reactive curing mechanisms. It has very low odor.

MasterSeal Vehicular Traffic 2530 Primerless is composed of:

- MasterSeal M 270 NP, a two-component, fast-curing polyurethane base coat
- MasterSeal 350, a two-component, fast-curing epoxy top coat
- MasterSeal TC 295 – a high performance, two-component, aliphatic, polyaspartic-modified, high solids, polyurethane waterproofing coating

For projects requiring aggregate, two options are available:

- MasterSeal 940, a hard-wearing, angular aggregate
- MasterSeal 940DR, an aggregate free of respirable crystalline silica

PRODUCT HIGHLIGHTS

- MasterSeal 940DR aggregate is free of respirable crystalline silica
- Two component composition provides faster setting times, even in cooler climates
- 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 chemical resistance to protect against common parking deck chemicals including gasoline, diesel fuel, oil, alcohol, ethylene glycol, deicing salt, bleach and cleaning agents
- Skid resistant for increased safety; offers excellent durability and superior abrasion resistance
- Extremely durable with outstanding abrasion resistance, allowing for longer service life

INDUSTRIES/APPLICATIONS

MasterSeal Vehicular Traffic 2530 Primerless consists of a highly wear-resistant, rigid top coat which is not designed for areas subject to movement.

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

VOC CONTENT

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

- MasterSeal M 270 Part A: 4 g/L
- MasterSeal M 270 Part B: 5 g/L
- MasterSeal 350: 0 g/L
- MasterSeal TC 295 Part A: 20 g/L
- MasterSeal TC 295 Part B: 174 g/L

Technical Data

Composition

MasterSeal Traffic 2530 Primerless is comprised of MasterSeal M 270 NP, MasterSeal TC 295, and MasterSeal 350.

Compliances

- CSA S413
- ASTM C 957

Test Data

PROPERTY	RESULTS		TEST METHOD	
	M 270 NP	350		TC 295
Solids				
By weight, %	99	100	90	ASTM D 1259
Viscosity, cps	3,400	2,000–2,500	2,500–4,000	ASTM D 2393

*Uncured material

Test Data

PROPERTY	RESULTS	SPECIFICATIONS	TEST METHOD
Crack bridging, MasterSeal M 270 NP	Passes	No cracking	ASTM C 957
Adhesion (Pull-off), psi MasterSeal M 270 NP	3,000 (20.7)	Control	ASTM D 412
Elongation, MasterSeal M 270 NP	950	Control	ASTM D 412
Hardness MasterSeal 350 Shore D at 7 Days	62	—	ASTM D 2240
Taber Abrasion Resistance, MasterSeal 350 mgms, CS-17 wheel, 1,000 cycles,	70 mg (neat)	—	ASTM D 4060
Tensile Elongation, MasterSeal 350	>30	—	ASTM D 638
Thermal Compatibility, mgms; MasterSeal 350 5 cycles, modified 8 hours @ 60 °C plus 16 hours @ -21 °C	100 70 mg (neat)	— —	ASTM D 4060 ASTM D 4060
Rapid Chloride Permeability MasterSeal 350 Chloride ion penetration at 28 days	Negligible	—	ASTM D 1202

MasterSeal 940 Aggregate # 9 or MasterSeal 940DR Aggregatet

PROPERTY	941 RESULTS	945 RESULTS
Color	Gray	Green to Gray
Compressive Strength	28,000 psi	
Hardness	6-6.5 Mohns	7 Mohns
Specific Gravity	2.90 g/cc	3.3 g/cc
Bulk Density	102 pcf	85 to 105 pcf
US SIEVE SIZE	% RETAINED ON SIEVE	
#6	0	
#12	57	2–10
#16	33	10–30
20	7	20–35
30	2	20–40
40	1	7–22
Pan	0	

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 CSP3 (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 non-moving joints and cracks less than 1/16" (1.6 mm) wide, apply 25 wet mils (0.6 mm) prestripping of MasterSeal M 270 NP. MasterSeal M 270 NP must be applied to fill and overlap the joint or crack 3" (76 mm) on each side. Feather the edges.
2. Dynamic cracks and joints over 1/16" (1.6 mm) wide must be routed to a minimum of 1/4 by 1/4" (6 by 6 mm) and cleaned. Install bond breaker tape to prevent adhesion to bottom of joint. Prime joint faces only with MasterSeal P 173 and fill with MasterSeal SL 1™, SL 2™, NP1™ or NP2™. For joints deeper than 1/4" (6 mm), use appropriate backer rod. For cracks, sealant should be flush with the adjacent surface. For expansion joints, sealant should be slightly concave. After the sealant has cured, apply 25–30 wet mils (0.64–0.77 mm) of MasterSeal M 270 NP pre-stripping over the cured sealant, overlap the joint 3" (76 mm) on each side.
3. Dynamic joints and cracks over 1/16" (1.6 mm) wide must be routed to a minimum of 1/4" by 1/4" (6 by 6 mm) and cleaned. Install

a bond breaker material at the bottom of the joint to prevent three-sided adhesion. Prime joint surfaces with MasterSeal P 173 and fill with MasterSeal SL 2™ or MasterSeal NP 2™. Sealant should be flat and flush with the adjacent surface. After the sealant has cured, apply 25–30 wet mils (0.64–0.77 mm) of MasterSeal M 270 NP pre-stripping over the cured sealant, overlap the joint 3" (76 mm) on each side.

4. Sealant joints, including precast panel joints, are not to be coated with MasterSeal 350 so they can perform independently of the deck coating system. Application of the full membrane system over moving joints will cause cracks in the epoxy topcoat.
5. Form a sealant cant into the corner at the junction of all horizontal and vertical surfaces (wall sections, curbs, columns) by priming with MasterSeal P 173 and applying a 1" (25 mm) wide bead of MasterSeal NP 1 or MasterSeal NP 2. Tool to form a 45° cant. Apply masking tape to the vertical surfaces 4–5" (102–12 mm) above the sealant cant to provide a clean termination of the vertical detail coat. After the sealant has cured, apply 25 wet mils (0.64 mm) of MasterSeal M 270 NP over the cured cant up to the masking tape and 4" (102 mm) onto deck surface. Feather onto the deck surface so that it will not show through the finished coating system. During the system application do not apply the epoxy topcoat over the sealant cant bead and do not apply up the face of the vertical surface. Coat this entire exposed cant bead area with MasterSeal TC 295 or MasterSeal TC 225.
6. Where the coating system will be terminated and no wall, joint, or other appropriate break exists, cut a 1/4 by 1/4" (6 by 6 mm) keyway into the concrete. Fill and coat keyway during application of MasterSeal M 270 NP.

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 M 270 NP

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 – MasterSeal 350

1. Precondition both A and B components to a temperature of approximately 70 °F (21 °C).
2. Thoroughly mix each separate component for 2–3 minutes.
3. Mix Part A (resin) and Part B (hardener) in the proper ratio (1 to 1 by volume) using a slow speed drill (250–500 rpm) and paddle for 2–3 minutes.
4. Because of the quick cure rate of this product, do not mix more material than can be applied within the pot life of 15–25 minutes at 75 °F (24 °C). Elevated temperatures decrease pot life, and reduced temperatures increase pot life. Always mix the MasterSeal 350 epoxy material in clean, unused containers. Do not reuse mixing containers.
5. The maximum recoat window for additional coats of MasterSeal 350 is 24 hours.

MIXING – MasterSeal TC 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 paks 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.

APPLICATION

MasterSeal Vehicular Traffic 2530 Primerless can be installed in several configurations, 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 configuration. All coverage rates are approximate.

HEAVY DUTY TRAFFIC SYSTEM

1. Apply 25 wet mils of MasterSeal M 270 NP with proper notched squeegee at the rate of 50–60 ft² /gal (1.2–1.5 m² /L). Allow basecoat to cure 3–4 hours minimum. MasterSeal 350 must be applied to the cured MasterSeal M 270 NP within 24 hours.
2. Apply 20–25 wet mils of the mixed MasterSeal 350 with proper notched squeegee at the rate of 60–80 ft² /gal (1.6–2.0 m² /L). Place the epoxy to permit a continuous operation by applying the second mix immediately behind the first mix.
3. Immediately broadcast MasterSeal 940 Aggregate # 9 or MasterSeal 940DR Aggregate to complete saturation (approximately 1.1 lb/ft²). If wet spots develop immediately broadcast additional aggregate until a dry surface is reestablished. On large areas, work small sections to ensure aggregate is applied before the membrane begins to skin over.
4. Remove excess aggregate by sweeping, blowing, or vacuuming.
5. Apply 15–20 wet mils of the mixed MasterSeal 350 with proper notched squeegee at the 80–100 ft² /gal (0.4–0.5 m² /L). Place the epoxy to permit a

continuous operation by applying the second mix immediately behind the first mix. As a possible option, steps 3 and 6 can be combined to apply a single epoxy topcoat at 35–40 wet mils. Contact your local BASF representative for assistance.

6. Immediately broadcast MasterSeal 940 Aggregate # 9 or MasterSeal 940DR Aggregate to complete saturation (approximately 1.1 lb/ft²). If wet spots develop, immediately broadcast additional aggregate until a dry surface is reestablished. On large areas, work small sections to ensure aggregate is applied before the membrane begins to skin over.
7. Allow a minimum cure time of 6 hrs at 70 °F (21 °C). for MasterSeal 350 before allowing vehicular traffic.

EXTRA HEAVY DUTY TRAFFIC SYSTEM

1. Apply 25 wet mils of MasterSeal M 270 NP with proper notched squeegee at the rate of 50–60 ft² /gal (1.2–1.5 m² /L). Allow basecoat to cure 3–4 hours minimum. MasterSeal 350 must be applied to the fully cured MasterSeal M 270 NP within 24 hours.
2. Apply 40 wet mils of the mixed MasterSeal 350 topcoat with proper notched squeegee at the 35–40 ft² /gal (0.9–1.0 m² /L). Place the epoxy to permit a continuous operation by applying the second mix immediately behind the first mix.
3. Immediately broadcast MasterSeal 940 Aggregate # 9 or MasterSeal 940DR Aggregate to complete saturation (approximately 1.1 lb/ft²). If wet spots develop, immediately broadcast additional aggregate until a dry surface is re-established. On large areas, work small sections to ensure aggregate is applied before the membrane begins to skin over.
4. Remove excess aggregate by sweeping, blowing or vacuuming.
5. Apply 40 wet mils of the mixed MasterSeal 350 topcoat with proper notched squeegee at the 35–40 ft² /gal (0.9–1.0 m² /L). Place the epoxy to permit a continuous operation by applying the second mix immediately behind the first mix.
6. Immediately broadcast MasterSeal 940 Aggregate # 9 or MasterSeal 940DR Aggregate to complete saturation (approximately 1.1 lb/ft²). If wet spots develop, immediately broadcast additional aggregate until a dry surface is re-established. On large

areas, work small sections to ensure aggregate is applied before the membrane begins to skin over.

7. Allow a minimum cure time of 6 hrs at 70 °F (21 °C) for MasterSeal 350 before allowing vehicular traffic.

IMPORTANT NOTES:

All coverage rates are approximate and may vary due to texture, porosity of the substrate, size and type of aggregate used, temperature and application techniques used. In order to verify your coverage rates, a mockup is recommended.

MasterSeal 350 is not designed to be used as a decorative system and will discolor over time when exposed to UV light.

As an option, an elastomeric polyurethane topcoat such as MasterSeal TC 295 can be applied over the top of the MasterSeal 350 to change the final appearance. The systems listed in this data guide can be altered by BASF to suit particular site conditions. Contact your local BASF representative for assistance.

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 and 48 hours before pedestrian use. Extend the curing time in cool-weather conditions. To reduce the time period in which MasterSeal Vehicular Traffic 2530 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 these 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 350, MasterSeal M 270 NP, and MasterSeal TC 295 have very short working times. Once the material has been mixed, the coating must be poured onto the surface and applied immediately
- Minimum application temperature is 40 °F (4 °C). Contact technical support when temperatures are above 90 °F (32 °C)
- 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 and be cured for a minimum of 28 days
- Do not apply the MasterSeal Vehicular Traffic 2530 Primerless system to concrete slabs on grade, splits slabs with a sandwiched waterproofing membrane, unvented metal pan decks or plywood decks.
- Do not apply the MasterSeal Vehicular Traffic 2530 Primerless system to a concrete deck that has deflection exceeding L/480.
- MasterSeal 350 is a rigid epoxy material and may crack due to substrate flex and movement under the membrane system. Do not install MasterSeal 350 over moving sealant joints.
- 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 coating needed for each grid to arrive at the required mil thicknesses.

- Avoid application of MasterSeal Vehicular Traffic 2530 Primerless traffic deck coatings when inclement weather is present or imminent.
- Do not apply MasterSeal Vehicular Traffic 2530 Primerless to damp, wet or contaminated surfaces
- Terminate MasterSeal 350 at the base of vertical wall areas with a sealant cant bead. It may be required to cover the sealant cant bead and up the wall with either MasterSeal Vehicular Traffic 2500 or MasterSeal TC 225.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the sole 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%.

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.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

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