

# MasterSeal® Vehicular Traffic 1500

Polyurethane waterproofing, traffic-bearing membrane systems for vehicular areas

FORMERLY SONOQUARD®

## PACKAGING

MasterSeal M 200

- 5-gallon (18.93 L) pails
- 55-gallon (208 L) drums

MasterSeal 225

- 5 gallon (18.93 L) pails
- 55-gallon (208 L) drums

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 914

- 1 pint (473 mL) cans

MasterSeal 915

- 0.5 pints (236 mL) cans

MasterSeal P220

- 4-gallon (15.14 L) of material in 5-gallon (18.93 L) pails

MasterSeal P222

- 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 225:	1 year
MasterSeal 941 Aggregate:	5 years
MasterSeal 941DR Aggregate:	5 years
MasterSeal 945 Aggregate:	5 years
MasterSeal 914:	2 years
MasterSeal 915:	1 year
MasterSeal P220:	1 year
MasterSeal P222:	1.5 years

## STORAGE

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

## YIELD

See application instructions.

## COLORS

TC 225: Grey, Charcoal, Tan, Dark Tan

## DESCRIPTION

MasterSeal Traffic 1500 is a waterproofing system consisting of:

- MasterSeal M 200, a one-component, moisture-curing polyurethane
- MasterSeal TC 225, a one-component aliphatic moisture-curing polyurethane

Note: MasterSeal TC 225 Tint Base is intended for pedestrian use only and is not suitable for vehicular traffic.

For projects requiring aggregate, three options are available:

- MasterSeal 941, a silica sand 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

- 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
- Primer coat not typically required which helps to reduce labor and material costs
- Waterproof to protect concrete from freeze/thaw damage; protects occupied areas below from water damage
- Excellent chloride resistance provides protection against chloride intrusion; extends the life of reinforcing steel
- Seamless elastomeric membrane offers excellent durability and superior abrasion resistance, has no seams that may result in leaks
- Provides skid resistance to increase safety and offers excellent durability and superior abrasion resistance
- Repairable and recoatable to extend the useful life of the system

## INDUSTRIES/APPLICATIONS

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

## 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 225: 209 g/L

**Technical Data**

**Composition**

MasterSeal Traffic 1500 is a moisture-curing polyurethane membrane.

**Compliances**

- UL 790 Class A Fire Rating
- ASTM C 957
- ASTM E 108
- ASTM E 84
- CSA S413



**Test Data**

PROPERTY*	RESULTS		TEST METHOD
	M 200	TC 225	
<b>Weight per gallon, lbs (kg)</b>	9.9 (4.5)	9.1 (4.1)	ASTM D 1475
<b>Specific gravity, kg/L</b>	1.19	1.09	
<b>Solids</b>			ASTM D 1259
By weight, %	84	77	
By volume, %	81	75	
<b>Viscosity, cps</b>	4,000–9,000	2,000–4,000	ASTM D 2393
<b>Flash Point, °F (°C)</b>	104 (40)	105 (40.5)	ASTM D 56

\*Uncured material

PROPERTIES OF CURED MEMBRANES

PROPERTY	RESULTS		TEST METHOD REQUIREMENTS
	M 200	TC 225	
<b>Hardness, Shore A</b>	60	89	ASTM D 2240
<b>Tensile strength, psi (MPa)</b>	752 (5.2)	2,500 (17.2)	ASTM D 412
<b>Elongation, %</b>	595	502	ASTM D 412
<b>Tear strength, PIT</b>	74	199	ASTM D 1004
<b>Weight loss, %</b>	16	17	Max: 40
<b>Low temperature flexibility and crack bridging</b>	No Cracking	No Cracking	No Cracking
<b>Adhesion in peel after water immersion, pli,</b>			
Primed mortar	43	N/A	5
Plywood	34	N/A	5
<b>Adhesion (Pull-off), psi</b>			
Base Coat	400	N/A	ASTM D 4541

CHEMICAL RESISTANCE TENSILE RETENTION (ASTM C 957)

CHEMICAL	RESULTS		REQUIREMENTS
	M 200	TC 225	
<b>Ethylene glycol</b>	88	92	Min: 70
<b>Mineral spirits</b>	47	60	Min: 45
<b>Water</b>	96	83	Min: 70

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

MASTERSEAL AGGREGATES

PROPERTY	941 RESULTS	941DR 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
<b>U.S. SIEVE SIZE</b>			
<b>% RETAINED ON SIEVE</b>			
#6			
#12		2–10	
#16	71	10–30	
20	23	20–35	
30	2	20–40	0–3
40	1	7–22	10–25
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 CSP-3 (as described in ICRI document 03732.)
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 MasterSeal M 200. MasterSeal M 200 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  $\frac{1}{16}$ " (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. When required, primer all 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 1™ / SL 2™ (slope grade or selfleveling) or MasterSeal NP 1™ / NP 2™ sealants. 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, overlap the joint 3" (76 mm) on each side.
3. Sealed joints 1" (25 mm) or less can be coated over with MasterSeal Vehicular Traffic 1500. Expansion joints exceeding 1" (25 mm) wide should not be coated over with MasterSeal

Vehicular Traffic 1500 so that they can perform independently of the deck coating system.

4. Where the coating system will be terminated and no wall, joint or other appropriate break exists, cut a . " x . " (6 x 6 mm) keyway into the concrete. Fill and coat keyway during application of MasterSeal M 200.
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 .-1" (13–25 mm) wide bead of MasterSeal NP 1 or MasterSeal NP 2 sealants. Tool to form a 45 degree cant. Apply masking tape to the vertical surfaces 4–5" (102–127 mm) above the sealant cant to provide a clean termination of the vertical detail coat. After the sealant has cured, apply 25 mils (0.64 mm) of MasterSeal M 200 over the cured cant up to the masking tape and 4" (102 mm) onto deck surface.
6. In locations of high movement such as wall and slab intersections, a reinforcing fabric is required. After the sealant cant bead is applied and cured, apply 25 wet mils of MasterSeal M 200 over the sealant and embed MasterSeal 995 reinforcing fabric into the wet detail coat.

#### UNCOATED METAL SURFACES

1. 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 NP1/NP2. Apply a detail coat of 25 wet mils of MasterSeal M 200 over the primed metal and sealant.

#### PLYWOOD

1. All plywood must be smooth-faced, APA-stamped and exterior grade tongue and groove. Construction must conform to code, but plywood must not be less than  $\frac{23}{32}$ " (20 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. Pre-stripe 4–6" (102–152 mm) wide with 25 wet mils (0.64 mm) of M 200. Reinforce all seams between plywood sheets and between flashing and the plywood deck by embedding MasterSeal 995 Reinforcing Fabric into the pre-stripping.

## HOW TO APPLY

### 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 225 PRE-PIGMENTED

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

## APPLICATION OF PRIMER

### PRIMER

NOTE: When primer is required on a job, follow these steps. When applying MasterSeal Vehicular Traffic 1500 without using a primer, proceed to Application.

1. After thoroughly vacuuming the surface, apply MasterSeal P 222 or P 220 to all the properly prepared deck surfaces at the rate of 200–250 ft<sup>2</sup>/gal (4.9–6.1 m<sup>2</sup>/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 until tack-free. M 200 must be applied the same working day.

### MASTERSEAL M 200

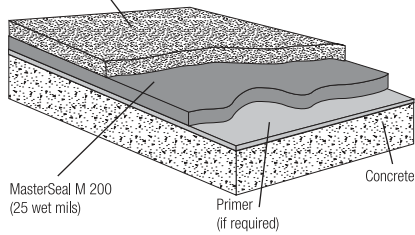
1. All preparatory work must be completed before application begins. Be certain the substrate is clean, dry, stable and properly profiled. Sealants and pre-stripping should be properly cured. Apply the base, mid and finish coats with a properly sized squeegee to arrive at the required mil thicknesses.
2. Apply MasterSeal M 200 at 25 wet mils thick (0.64 mm) using a proper notched squeegee to entire deck surface, and back roll, overcoating the properly prepared cracks, joints and flashings. For sloped areas, use slope-grade MasterSeal M 200. Do not coat expansion joints over 1" (25 mm) wide. Slope grade product should be used on a slope greater than 15%.
3. Allow curing time of overnight (16-hour minimum). Extend the curing time in cool or dry weather conditions. The surface of MasterSeal M 200 should have a slight tack. If the coating has been exposed for a prolonged period, consult Technical Service for recommendations.

**APPLICATION METHODS OF SYSTEMS**

MasterSeal Vehicular Traffic 1500 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.

**LIGHT TO MEDIUM DUTY TRAFFIC SYSTEM**

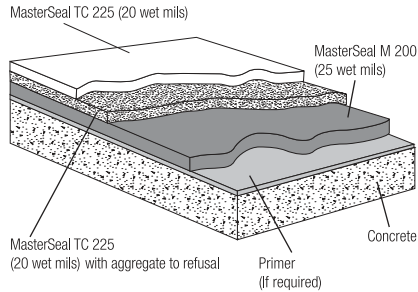
MasterSeal TC 225 (25 wet mils)  
 with aggregate backrolled into wet top coat



**LIGHT- TO MEDIUM- DUTY TRAFFIC SYSTEM**

1. Prime concrete substrate (if required).
2. Apply 25 (0.64 mm) wet mils of MasterSeal M 200 using a proper notched squeegee at 55–60 ft<sup>2</sup>/gal (1.35–1.47 m<sup>2</sup>/L). Immediately backroll to level base coat. Allow to cure overnight.
3. Apply 25 wet mils (0.64 mm) MasterSeal TC 225 using a proper notched squeegee at 55–60 ft<sup>2</sup>/gal (1.35–1.47 m<sup>2</sup>/L). Immediately backroll to level MasterSeal TC 225 material.
- 4A. BROADCAST AND BACKROLL  
 While the coating is still wet, broadcast MasterSeal 941/941 DR or equivalent 16–30 rounded silica sand at 15–25 lbs/100 ft<sup>2</sup>/gal (0.75–1.25 kg/m<sup>2</sup>), then backroll into the coating to fully encapsulate.
- 4B. INTEGRATED AGGREGATED  
 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 (2.5 gallons of TC 225). 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 light 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.

**HEAVY DUTY TRAFFIC SYSTEM**



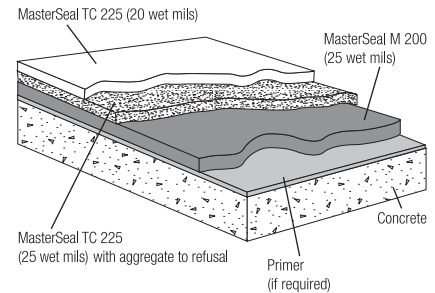
**HEAVY-DUTY TRAFFIC SYSTEM**

1. Prime concrete substrate (if required).
2. Apply 25 (0.64 mm) wet mils of MasterSeal M 200 or using a proper notched squeegee at 55–60 ft<sup>2</sup>/gal (1.35–1.47 m<sup>2</sup>/L). Immediately backroll to level base coat. Allow to cure overnight
3. Apply 20 wet mils (0.51 mm) MasterSeal TC 225 using a notched squeegee at 75–80 ft<sup>2</sup>/gal (1.83–1.97 m<sup>2</sup>/L). Immediately backroll to level MasterSeal TC 225. The next step, #4, can utilize either method described in 4A or 4B. MasterSeal TC 225 Tint Base is NOT intended for vehicular systems.
- 4A. AGGREGATE TO REFUSAL METHOD  
 Immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 mesh, rounded silica sand into the wet coating at the rate of 20–35 lbs/100 ft<sup>2</sup> (1.0–1.75 kg/m<sup>2</sup>). 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.
- 4B. BROADCAST AND BACKROLL METHOD  
 Immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 mesh, rounded silica sand into the wet coating and backroll to encapsulate the aggregate. Evenly broadcast aggregate at the rate of 15–20 lbs/100 ft<sup>2</sup> (0.75–1.0 kg/m<sup>2</sup>). Allow to cure overnight.

**4C. INTEGRATED AGGREGATE**

- The integrated MasterSeal 945 aggregate is NOT intended for use in heavy-duty traffic systems.
5. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Remove all loose aggregate, then apply 20 wet mils using a flat squeegee at 75–80 ft<sup>2</sup>/gal (1.84–1.96 m<sup>2</sup>/L). Immediately backroll to level MasterSeal TC 225.
  6. For additional slip resistance, immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 rounded silica sand at a rate of 3–5 lbs/100 ft<sup>2</sup> (0.15–0.25 kg/m<sup>2</sup>) and backroll to encapsulate.

**EXTRA HEAVY-DUTY SYSTEM**



**EXTRA-HEAVY DUTY SYSTEM**

1. Prime concrete substrate (if required).
2. Apply 25 (0.64 mm) wet mils of MasterSeal M 200 using a proper notched squeegee at 55–60 ft<sup>2</sup>/gal (1.35–1.47 m<sup>2</sup>/L). Immediately backroll to level base coat. Allow to cure overnight.
3. Apply 25 wet mils (0.64 mm) MasterSeal TC 225 or using a properly notched squeegee at the rate of 55–60 ft<sup>2</sup>/gal (1.35–1.47 m<sup>2</sup>/L). Immediately backroll to evenly level topcoat. The next step, #4, can utilize either method described in 4A or 4B. MasterSeal TC 225 Tint Base is NOT intended for vehicular systems.
- 4A. AGGREGATE TO REFUSAL METHOD  
 Immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 mesh, rounded silica sand into the wet coating at the rate of 20–35 lbs/100 ft<sup>2</sup> (1.0–1.75 kg/m<sup>2</sup>). 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

#### 4B. BROADCAST AND BACKROLL METHOD

Immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 mesh, rounded silica sand into the wet coating and backroll to encapsulate the aggregate. Evenly broadcast aggregate at the rate of 15–25 lbs/100 ft<sup>2</sup> (0.75–1.25 kg/m<sup>2</sup>). Allow to cure overnight.

#### 4C. INTEGRATED AGGREGATE

The integrated MasterSeal 945 aggregate is NOT intended for use in heavy-duty traffic systems.

5. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Remove all loose aggregate, then apply 20 wet mils using a flat squeegee at 75–80 ft<sup>2</sup>/gal (1.84–1.96 m<sup>2</sup>/L). Immediately backroll to level MasterSeal TC 225.

6. For additional slip resistance, immediately broadcast MasterSeal 941/941 DR or equivalent at a rate of 3–7 lbs/ 100 ft<sup>2</sup> (0.15–0.25 kg/m<sup>2</sup>) and backroll to encapsulate.

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, intermediate coat aggregate load and environmental conditions. Application methods and conditions are not under the control of BASF. Ensure that an adequate amount of aggregate is utilized to achieve desired slip resistance.

#### MOCKUP

1. Provide mockup of at least 100 ft<sup>2</sup> (9.3 m<sup>2</sup>) 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 Vehicular Traffic 1500 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 BASF representative prior to system application.
- Concrete should have a minimum compressive strength of 3,000 psi (20.7 MPa) and be cured for a minimum of 28 days.
- Do not apply to concrete that is out-gassing
- Be sure to allow for movement in the deck by the proper design and use of expansion and control joints.
- When applying sealants, use backing materials according to industry standards.
- Do not apply when substrate temperatures are over 110 °F (32 °C) or under 40 °F (4 °C).
- When applying MasterSeal Vehicular Traffic 1500 at interior or contained spaces, provide adequate ventilation with a minimum of six air changes per hour.
- When adequate ventilation for use of MasterSeal\_Vehicular Traffic 1500 cannot be maintained, consider the use of MasterSeal Vehicular Traffic 2500 coating system, Form No 1017917.
- Be certain that all aggregate not properly encapsulated is thoroughly removed.
- On steep ramps in excess of 15%, contact your local BASF representative.
- Substrate temperature must be more than 5 degrees above dew point during application and cure.
- MasterSeal TC 225 Tint Base is intended for pedestrian use only and is not suitable for vehicular traffic.
- Do not apply MasterSeal Vehicular Traffic 1500 to concrete slabs on grade, unvented metal pan decks and split slab applications with a membrane between slabs.
- Select the proper amount of aggregate to promote slip resistance.
- The best method to ensure average wet film thickness is the use of a grid system. Divide the surface area to be coated into grids and calculate the square footage of each. For example, one pail of MasterSeal M 200 applied at 55–60 ft<sup>2</sup>/gal should cover approximately 275–300 sq ft or a minimum grid of 16 x 16 ft at 25 wet mils. The wet film thickness can also be verified with a wet film thickness gauge. Verify coverage via site mockup.
- Pre-stripe to level out recessed sealant joints (less than 1" [25 mm]) for optimal aesthetic appearance.
- Avoid application of MasterSeal Vehicular Traffic 1500 when inclement weather is present or imminent.
- Do not apply MasterSeal Vehicular Traffic 1500 to damp, wet, or contaminated surfaces.
- MasterSeal Vehicular Traffic 1500 is 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.
- CAD & PDF deck coating details are available for download from our website; BASF Customer Service can direct you to the site.
- Do not apply pre-mixed, integrated MasterSeal 945 aggregate in heavy- or extra heavy-duty vehicular applications.

---

#### 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](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbscst@basf.com](mailto: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.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.