

Balcony Protocols—Maintenance and Replacing Sliders

Balcony Maintenance

Balcony furniture must have protective feet on any furniture placed on the balconies. Do not drag furniture across the surface.

Do not allow workers to do any cutting on your balcony. The metal shards can damage the waterproofing membrane.

Do not put full size carpeting on your balcony. They hold water. It is possible to use small “welcome mat” size carpets if you periodically make sure they dry out underneath. We do not recommend using any carpeting at all. Avoid outdoor grass carpets and types of rubber mats. They will trap moisture and dirt between the membrane and the carpet to not allow the membrane to breathe.

The balcony floorings will have to be cleaned periodically. If residents need to clean the floor, normal mild household cleaners are fine—no abrasives. Using a stiff broom may be effective.

The Association will be requesting inspections of the balconies twice a year to make sure there are no issues. Inspections allow potential issues to be identified and corrected before damage occurs. If a resident has caused any damage to the waterproofing membrane, we will be calling in WKM to repair the damage and this will be an owner expense.

Every five years, to renew the warranty, the waterproofing must be cleaned, refreshed and recoated to get an additional five-year warranty. When the five-year warranty work is being done, those screened enclosures must again come off (actually every five years). If the enclosures don't come off, the warranty work can't be completed to the end of the balconies. Anyone who puts a screened enclosure back on a balcony will need to know that the City of Dunedin now requires individual permits for each balcony installation and permits will require an engineer or architect's drawings to be submitted. Any screen enclosure removal, replacement, wall repair and paint is an owner's expense.

This maintenance refreshing/recoating can be done at 5 year and 10 years. At the 15-year mark, the balconies will need the coating removed and entire new coating work done. Details are kept in an office file.

The products being used inside the concrete work are expected to last 20-25 years because of all the precautions they are taking now. The longer we keep up maintenance and the warranties, the longer our building is protected.

The balcony warranty ends at the slider door.

Adding New Slider Doors to a Balcony

New sliders require a licensed, insured contractor and permits from the City of Dunedin. You must fill out the Homeowner Alteration and Improvement Request Form and submit it to our property manager for board approval.

Dispose of the old door and all construction materials off-property. No construction materials go into our dumpsters.

Attached is a generic sketch that follows BASF's required protocol (see below) to keep warranty intact.

Sketch(s) are NOT to scale and are exaggerated to show detail for the different coats of waterproofing.

All/any concrete repairs should be conducted prior to the owner's contractor setting the new door (repairs will require using a structural engineer and get the repairs inspected by city however). These concrete repairs are an Association cost.

All fasteners that penetrate concrete should be stainless steel and preferably set in urethane sealant to "self-seal".

WKMRG & BASF warranty ends at the door, regardless of what option they do below, so concrete repairs and the owner's contractor's attention to detail with regards to using stainless steel fasteners and drying them is on them. If they do not, it will not impact the balcony waterproofing warranty; however, if they do it, would be "better practices".

Narrative from BASF is as follows;

Option 1 with coating under new door is preferred.

Option 2 with coating stopping at new door is an option; however, option 1 is highly recommended!

For the current waterproofing conducted by WKMRG and any new waterproofing installed after a new door is installed; warranty will terminate at the door assuming the owner's contractor followed BASF guidelines.

Option 1.

- Generally when a new sliding glass door is installed they will install MasterSeal M 200 waterproofing membrane under the new threshold and a minimum of 1" onto the existing TC 225 top coat that has been deglossed, xylene wiped and allowed to properly flash, followed by wet setting the fasteners in CR 195 or NP1 urethane sealant.
- Install a cant bead of CR 195 or NP1 urethane at the deck-to-sliding glass door transition.

- Apply one coat of MasterSeal M 200 two inches onto the deck, that has been deglossed, xylene wiped and allowed to properly flash, wrapping the M 200 onto the urethane sealant.
- Apply one coat of TC 225 top coat over the M 200 and hand sprinkle deck coating aggregate and encapsulate.

Install per the attached Traffic 1500 technical data guide.

Option 2.

- Install a cant bead of CR 195 or NP1 urethane at the deck-to-sliding glass door transition
- Apply one coat of MasterSeal M 200 two inches onto the deck, that has been deglossed, xylene wiped and allowed to properly flash, wrapping the M 200 onto the urethane sealant.
- Apply one coat of TC 225 top coat over the M 200 and hand sprinkle deck coating aggregate and encapsulate.

Install per the attached Traffic 1500 technical data guide.

Lastly, to eliminate an appearance issue to the owner and based on the fact that the materials come in 5g pails, owner's contractor should consider the following to eliminate a "line" from showing (their new coating to WKMRG existing coating). After the new door is installed,

Lightly rinse deck to remove any foreign substances (eg. dirt, dust, salts, etc.)

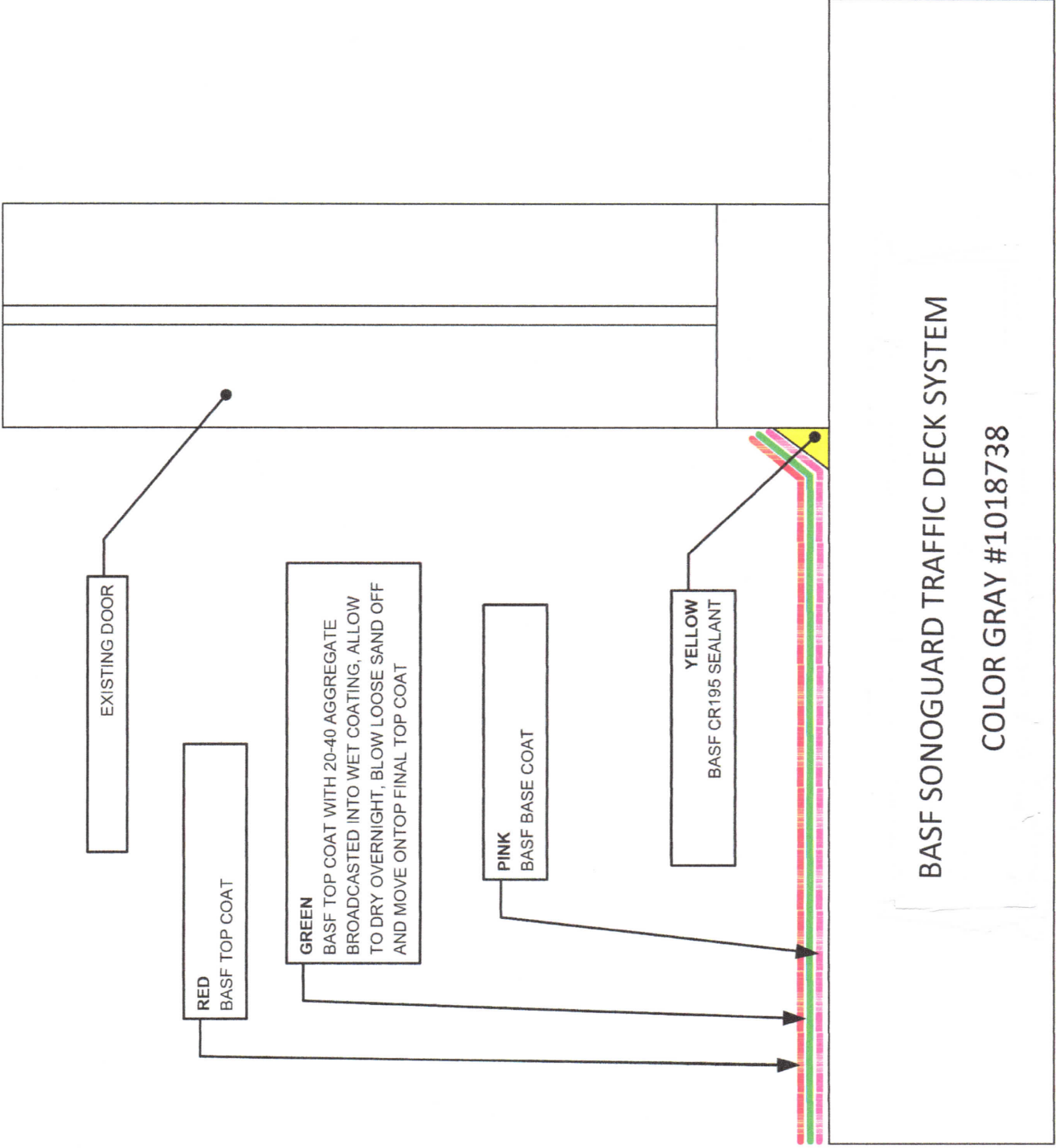
Xylene wipe the entire deck.

Apply first coat of BASF TC225 with adhesion promoter.

While coating is still wet, broadcast 20-40 aggregate, allow to dry overnight.

Blow excess sand off deck and then apply the second coat of BASF TC225.

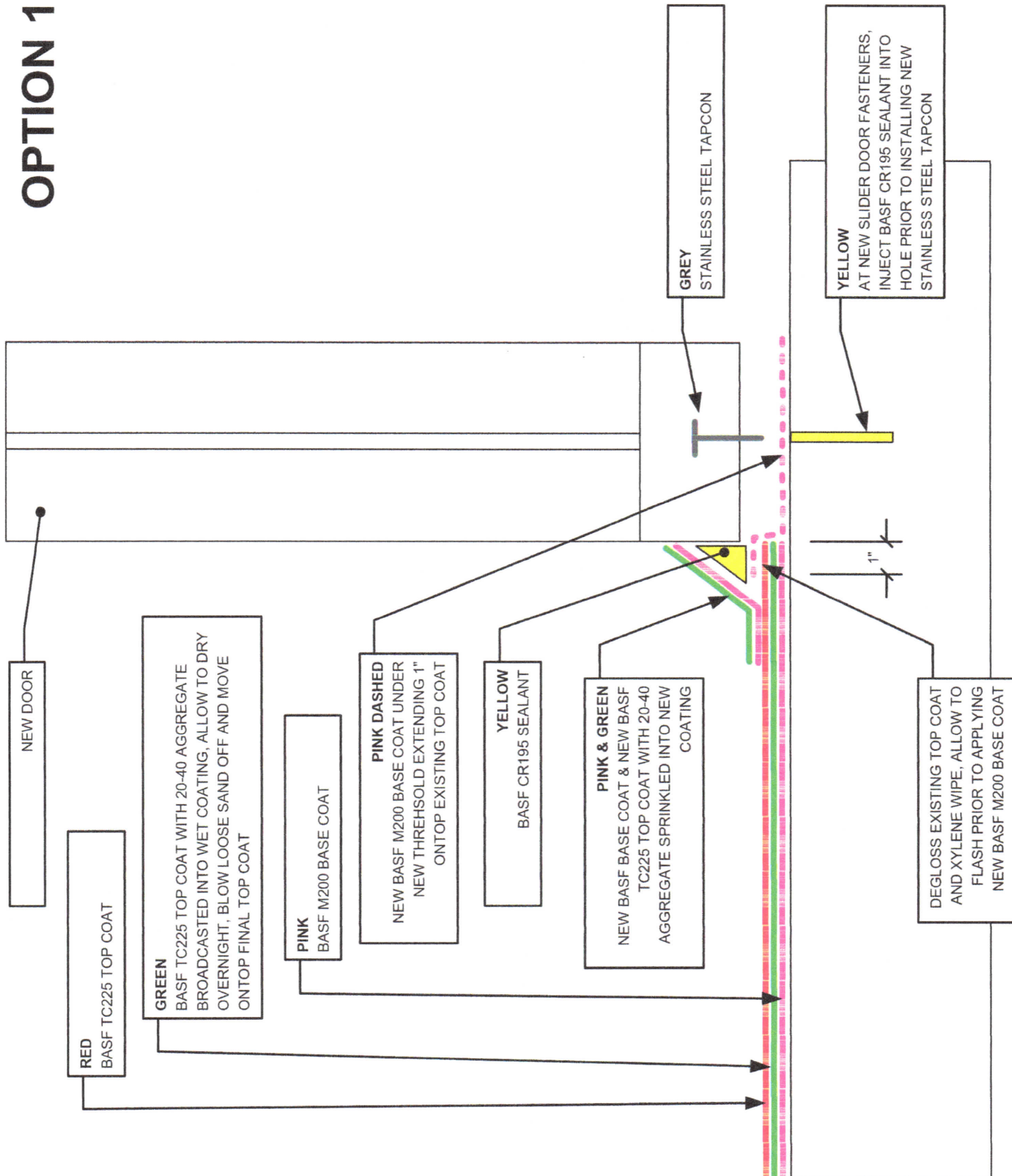
Coating application should follow BASF technical bulletins, attached is the information for the caulking "CR195" and the waterproof coating "MS1500".



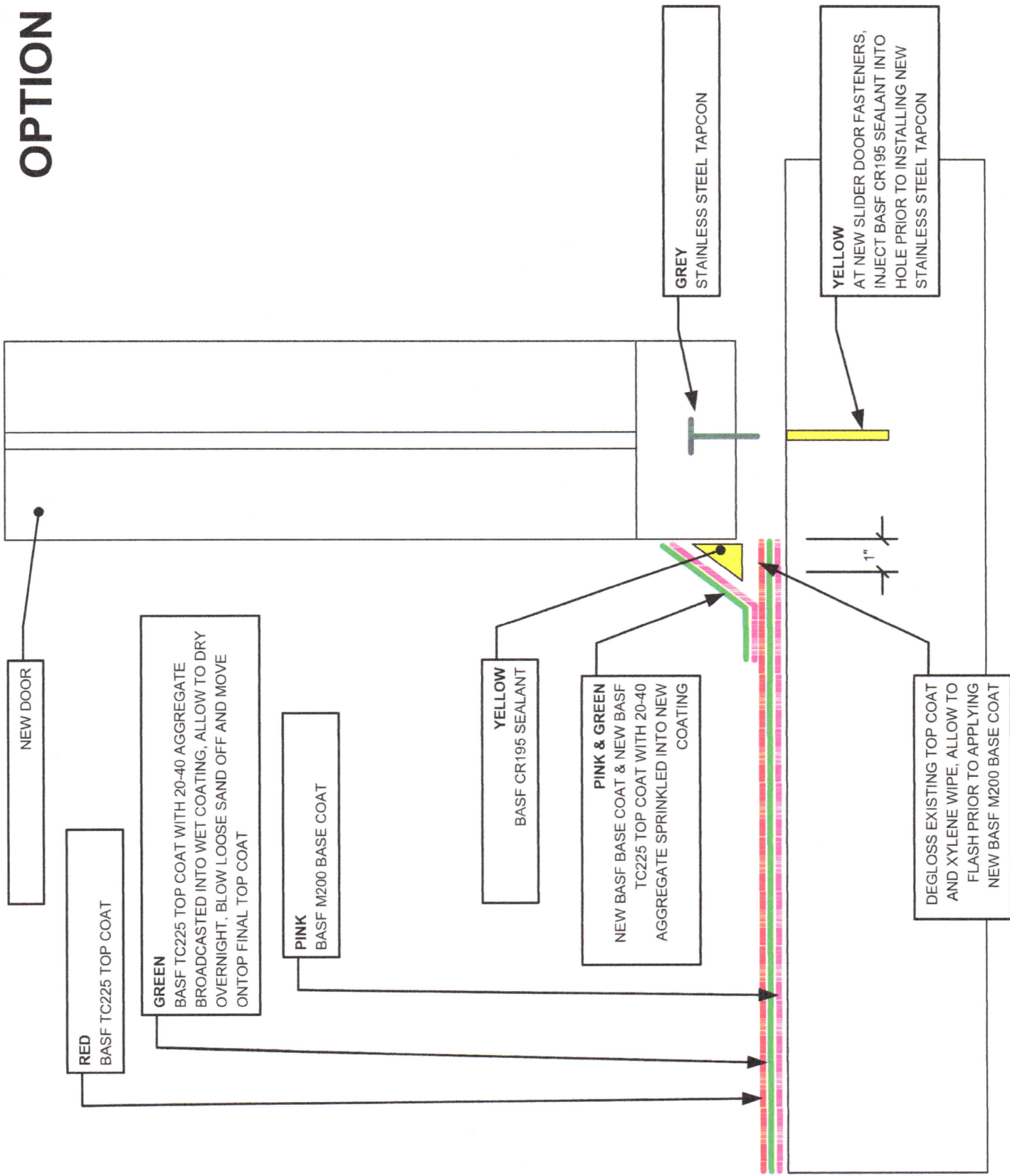
BASF SONO GUARD TRAFFIC DECK SYSTEM

COLOR GRAY #1018738

OPTION 1



OPTION 2



MasterSeal® Traffic 1500

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

FORMERLY SONO GUARD®

PACKAGING

- MasterSeal P 222:
5 gallon (18.93 L) pails
- MasterSeal P 220:
- 4 gallon (15.14 L) units in
- 5 gallon pails (18.93 L)
- MasterSeal M 200,
(self-leveling and slope-grade):
- 5 gallon (18.93 L) pails
- 55 gallon (208 L) drums
- MasterSeal TC 225:
- 5 gallon (18.93 L) pails
- 55 gallon (208 L) drums
- MasterSeal 914: 1 pint (473 mL) cans
- MasterSeal 915 (for recoat applications):
0.5 pint (236 mL) cans

YIELD

See chart on page 3

COLORS

Gray, Charcoal, Tan, Dark Tan

STORAGE

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

SHELF LIFE

- MasterSeal M 200 and TC 225:
5 gal pails, 1 year when properly stored
- MasterSeal 914: pint cans:
2 years when properly stored
- MasterSeal 915:
1 year when properly stored
- MasterSeal 900:
5.5 years when properly stored

DESCRIPTION

MasterSeal Traffic 1500 waterproofing systems are composed of:

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

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

For projects requiring primer, two choices are available:

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

PRODUCT HIGHLIGHTS

- MasterSeal 941DR aggregate is free of respirable crystalline silica.
- Primer coat not typically required which helps to reduce labor and material costs
- Waterproof which helps 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
- Multiple systems available, making MasterSeal Traffic 1500 ideal for various vehicular or pedestrian traffic solutions
- Repairable and recoatable to extend the useful life of the system
- Four standard colors: gray, charcoal gray, tan and dark tan
- For TC 225 Tint Base: 40 standard colors utilizing MasterSeal 900 color packs (Pedestrian use only)

VOC CONTENT

- MasterSeal M 200:
- Self-leveling grade:
196 g/L less water and exempt solvents
- Flash/slope grade: 71.0 g/L
less water and exempt solvents
- MasterSeal TC 225: 209 g/L
less water and exempt solvents.

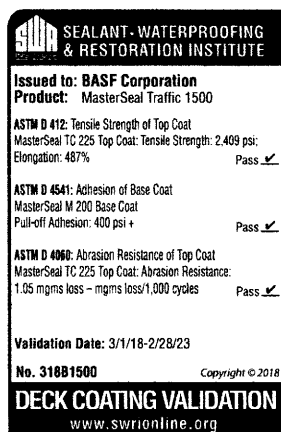
Technical Data

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

*Uncured material

PROPERTIES OF CURED MEMBRANES

PROPERTY	RESULTS		TEST METHOD REQUIREMENTS
	M 200	TC 225	
Hardness, Shore A	60	89	ASTM D 2240
Tensile strength, psi (MPa)	752 (5.2)	2,500 (17.2)	ASTM D 412
Elongation, %	595	502	ASTM D 412
Tear strength, PIT	74	199	ASTM D 1004
Weight loss, %	16	17	Max: 40
Low temperature flexibility and crack bridging	No Cracking	No Cracking	No Cracking
Adhesion in peel after water immersion, pli,			
Primed mortar	43	N/A	5
Plywood	34	N/A	5
Adhesion (Pull-off), psi			
Base Coat	275	N/A	ASTM D 4541

CHEMICAL RESISTANCE TENSILE RETENTION (ASTM C 957)

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

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

Test Data, cont.

	LIGHT TO MEDIUM TRAFFIC & PEDESTRIAN	HEAVY DUTY (REFUSAL METHOD)	EXTRA HEAVY DUTY (REFUSAL METHOD)
Weight per gallon, lbs (kg)	9.9 (4.5)	9.1 (4.1)	ASTM D 1475
Base coat			
Wet mils (mm)	25 (0.64)	25 (0.64)	25 (0.64)
Dry mils (mm)	20 (0.5)	20 (0.5)	20 (0.5)
Coverage ¹	55–60 (1.35–1.5)	55–60 (1.35–1.5)	55–60 (1.35–1.5)
Mid coat			
Wet mils (mm)	None	20 (0.5)	25 (0.64)
Dry mils (mm)	None	15 (0.4)	20 (0.5)
Coverage ¹	None	75–80 (1.83–1.97)	55–60 (1.35–1.5)
Finish coat			
Wet mils (mm)	25 (0.64)	20 (0.5)	20 (0.5)
Dry mils (mm)	20 (0.5)	15 (0.4)	15 (0.4)
Coverage ¹	55–60 (1.35–1.5)	75–80 (1.83–1.97)	75–80 (1.83–1.97)
Aggregate²			
lbs per 100 ft ² (kg/m ²)	18–30 (0.8–1.5)	23–40 (1.15–2.0)	23–40 (1.15–2.0)

Coverage rates are approximate and may vary due to the application technique used.

Actual coverage rate will also depend on finish and porosity of the substrate.

¹ Coverage is ft²/gal (m²/L)

² Combined amount of aggregate, mid & topcoat (16–30 mesh rounded silica sand or proportional equivalent)

INDUSTRIES/SECTORS

- Stadiums
- Balconies
- Parking Garages
- Commercial Construction
- Building and Restoration
- Plywood decks/balconies
- Plaza decks

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 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 1/16" (1.6 mm) and greater 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 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 1/4" (6 mm) with appropriate backer rod and MasterSeal SL 1™/SL 2™ (slope grade or self-leveling) 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 Traffic 1500. Expansion joints exceeding 1" (25 mm) wide should not be coated over with MasterSeal 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 1/4" x 1/4" (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 1/2–1" (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 $\frac{3}{32}$ " (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 COLOR

1. All of the 40 standard colors from the Popular Palette for Sealants and Waterproofing require the use of 2 NP 2™ color packs per 5 gallon pail of Sonoguard® 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

1. Transfer entire contents of pigment cans into Sonoguard® Top Coat Tint-Base. Use a spatula or knife to remove all the pigment from the container.
2. With a slow-speed drill and Jiffy mixer, mix 4–6 minutes. The paddle blade must be kept below the surface of the Tint-Base to avoid whipping air into it.
3. To ensure consistent color throughout the pail, pour contents into separate container and continue mixing until all Tint-Base has dispersed.
4. When using multiple units, all units must be boxed to ensure color consistency.

APPLICATION OF PRIMER

PRIMER

NOTE: When primer is required on a job, follow these steps. When applying 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 ft²/gal (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 until tack-free. M 200 must be applied the same working day.

MASTERSEAL M 200

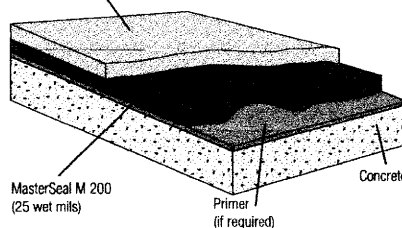
1. All preparatory work must be completed before application begins. Be certain the substrate is clean, dry, stable and properly profiled. Sealants and pre-stripping should be properly cured. Apply the base, mid and finish coats with a properly sized squeegee to arrive at the required mil thicknesses.
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 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 AND PEDESTRIAN SYSTEM

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

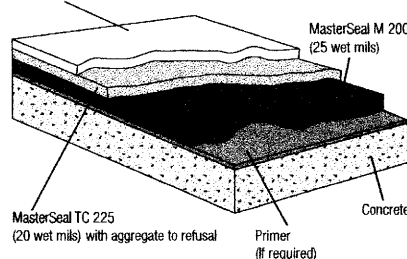


LIGHT- TO MEDIUM- DUTY TRAFFIC & PEDESTRIAN SYSTEM

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 ft²/gal (1.35–1.47 m²/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 ft²/gal (1.35–1.47 m²/L). Immediately backroll to level MasterSeal TC 225 material. While the coating is still wet, broadcast MasterSeal 941/941 DR or equivalent 16–30 rounded silica sand at 15–25 lbs/100 ft²/gal (0.75–1.25 kg/m²), then backroll into the coating to fully encapsulate.
4. When installing the MasterSeal TC 225 Tint, Base, a second coat may be required for proper hiding. A mock up should be performed to address any aesthetic expectations.

HEAVY DUTY TRAFFIC SYSTEM (Aggregate to refusal method)

MasterSeal TC 225 (20 wet mils)



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 ft²/gal (1.35–1.47 m²/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 ft²/gal (1.83–1.97 m²/L). Immediately backroll to level MasterSeal TC 225. The next step, #4, can utilize either method described in 4A or 4B.

4A. AGGREGATE TO REFUSAL METHOD

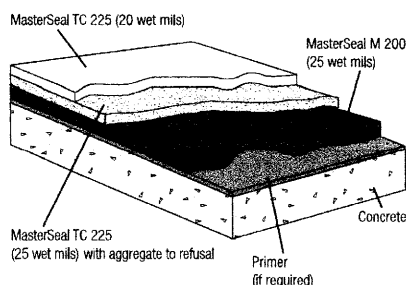
Immediately broadcast MasterSeal 941/941 DR or equivalent 16–30 mesh, rounded silica sand into the wet coating at the rate of 20–35 lbs/100 ft² (1.0–1.75 kg/m²). Immediately after the aggregate broadcast and while the coating is still wet, blow any excess aggregate via a portable blower forward into 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.

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 ft² (0.75–1.0 kg/m²). Allow to cure overnight.

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 ft²/gal (1.84–1.96 m²/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 ft² (0.15–0.25 kg/m²) and backroll to encapsulate.

EXTRA HEAVY-DUTY SYSTEM (Aggregate to refusal method)



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 ft²/gal (1.35–1.47 m²/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 ft²/gal (1.35–1.47 m²/L). Immediately backroll to evenly level topcoat. The next step, #4, can utilize either method described in 4A or 4B.

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 ft² (1.0–1.75 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.

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 ft² (0.75–1.25 kg/m²). Allow to cure overnight.

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 ft²/gal (1.84–1.96 m²/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 ft² (0.15–0.25 kg/m²) 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

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 of MasterSeal Traffic 1500 system.

1. Install mockup with specified coating types and with other components noted.
2. Locate where directed by architect.
3. Mockup may remain as part of work if acceptable to architect. For recoat applications, see MasterSeal Traffic 1500 technical bulletin #24.

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 Traffic 1500 might be vulnerable to inclement weather or to reduce the time between coats, use MasterSeal 914.

MAINTENANCE

1. Portions of the membrane that exhibit wear are considered a maintenance item, and are not considered a warrantable item.
2. Surfaces may be cleaned with commercial detergents. BASF recommends that a maintenance agreement be established between the owner and applicator.
3. Periodic inspection and repair of damaged surfaces will greatly prolong the performance and life of the system.
4. Remove all sharp debris such as sand, gravel and metal on a regular basis to avoid damage to the coating.
5. When removing snow, avoid the use of metal blades or buckets that may damage the coating.

CLEAN UP

Clean all tools and equipment with MasterSeal 990 or xylene.

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 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 Traffic 1500 cannot be maintained, consider the use of MasterSeal 2500 Traffic 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 are not suitable for vehicular traffic.
 - MasterSeal TC 225 Tint Base should be mixed with 2 BASF MasterSeal 900 color packs per 5 gallons in order to achieve the desired color tint.
 - Do not apply MasterSeal 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 ft²/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 Traffic 1500 when inclement weather is present or imminent.
 - Do not apply MasterSeal Traffic 1500 to damp, wet, or contaminated surfaces.
 - MasterSeal 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.
-
- FOR BEST PERFORMANCE: TC 225 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 Sonoguard® Tint-Base heavier than the recommended 25 mil (0.6 mm) application.
 - Colors exposed to direct sunlight may fade over a period of time. Darker colors potentially fade at an increased rate.
 - Apply only to pedestrian traffic areas.
 - 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.com, e-mailing your request to basfbcsst@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.

MasterSeal® CR 195

One-component, aliphatic, non-sag, elastomeric, polyurethane security sealant

FORMERLY SONOLASTIC® ULTRA

PACKAGING

- 300 ml (10.1 fl oz) cartridges, 30 per carton
- 20 fl oz (590 ml) ProPaks, 20 per carton

COLOR

Limestone, White and Aluminum Gray

YIELD

See page 3 for charts

STORAGE

Store in original, unopened containers away from heat and direct sunlight. Storing at elevated temperatures will reduce shelf life.

SHELF LIFE

1 year when properly stored

VOC CONTENT

118 g/L
less water and exempt solvents

DESCRIPTION

MasterSeal CR 195 is a one-component, moisture-curing, aliphatic, non-sag, polyurethane sealant for security and institutional uses requiring elasticity, abrasion and puncture resistance, with superior color integrity.

PRODUCT HIGHLIGHTS

- Aliphatic polyurethane technology with non-staining, non-yellowing, non-chalking characteristics
- Pick-resistant, making it excellent for security applications, schools and other public buildings
- High UV resistance prevents discoloration from sunlight
- Absence of tackiness creates a dirt free, self-cleaning surface
- Medium modulus provides superior puncture and abrasion resistance
- Superior gunability and workability for increased ease in tooling
- Movement capability $\pm 25\%$ expansion and contraction with joint movement
- Suitable for water immersion with documented performance in wet areas

APPLICATIONS

- Horizontal and vertical
- Interior and exterior
- Immersed in water
- Store fronts
- Expansion joints
- Curtain walls
- Panel walls
- Precast units
- Aluminum, vinyl, and wood window frames
- Prisons
- Schools
- Stadiums
- Parking decks
- Plazas
- Wastewater treatment plants
- Dams
- Spillways and storm drains
- Wetwells and manholes

SUBSTRATES

- Concrete, masonry
- Granite, marble
- Brick
- Metals
- Wood

Technical Data

Composition

MasterSeal CR 195 is a one-component, moisture-curing aliphatic polyurethane.

Compliances

- ASTM C 920, Type S, Grade NS, Class 25, Use NT, T, M, A, and I
- Federal Specification TT-S-00230C, Type II, Class A, when primed
- Corps of Engineers CRD-C-541, Type II, Class A
- USDA compliant for use in meat and poultry areas
- Canadian approval for use in areas that handle food, CFI

Typical Properties

PROPERTY	VALUE
Temperature range, ° F (° C)	-40 to 180 (-40 to 82)
Shrinkage	None

Test Data

PROPERTY	RESULTS	TEST METHOD
Movement capability, %	±25	ASTM C 719
100 % modulus, psi (MPa)	160 (1.1)	ASTM D 412
Tensile strength, psi (MPa)	600 (4.1)	ASTM D 412
Rheological, (sag in vertical displacement), at 120° F (49° C)	No sag	ASTM C 639
Ultimate elongation at break, %	600	ASTM D 412
Tear strength, pit	100	ASTM D 1004
Extrudability, 3 seconds	Passes	ASTM C 603
Hardness, Shore A, at standard conditions	50 ±5	ASTM C 661
Weight loss, after heat aging, %	9.2	ASTM C 792
Cracking and chalking, after heat aging	None	ASTM C 792
Tack-free time, hrs	< 72	ASTM C 679
Stain and color change	Passes	ASTM C 510
Bond durability, on glass, aluminum, and concrete, ±25% movement	Passes	ASTM C 719
Adhesion in peel*, pli		ASTM C 794
Primed dry		
Glass	37 CF**	
Aluminum	34 CF**	
Concrete	43 CF**	
Water immersion, 122° F (50° C)	Passes 10 weeks with cycling	ASTM C 1247

* Primed for water immersion dictated by ASTM C 920. Concrete and aluminum primed with P 173.

** Cohesive failure

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

TABLE 1

Joint Width and Sealant Depth

JOINT WIDTH, IN (MM)	SEALANT DEPTH AT MIDPOINT, IN (MM)
¼–½ (6–13)	¼ (6)
½–¾ (13–19)	¼–⅜ (6–10)
¾–1 (19–25)	⅜–½ (10–13)
1–1½ (25–38)	½ (13)

Yield

LINEAR FEET PER GALLON*

JOINT DEPTH, (INCHES)	JOINT WIDTH (INCHES)									
	¼	⅜	½	¾	¾	1	1½	2	3	
¼	308	205	154	122	—	—	—	—	—	
⅜	—	—	—	82	68	58	51	—	—	
½	—	—	—	—	51	44	38	26	19	

METERS PER LITER

JOINT DEPTH, (MM)	JOINT WIDTH (MM)									
	6	10	13	16	19	22	25	38	50	75
6	24.8	16.5	12.4	9.8	—	—	—	—	—	—
10	—	—	—	6.6	5.5	4.7	4.1	—	—	—
13	—	—	—	—	4.1	3.5	3.0	2.2	1.5	0.7

HOW TO APPLY

JOINT PREPARATION

1. The product may be used in sealant joints designed in accordance with SWR Institute's Sealants - The Professional's Guide.
2. In optimum conditions, the depth of the sealant should be ½ the width of the joint. The sealant joint depth (measured at the center) should always fall between the maximum depth of ½" and the minimum depth of ¼". Refer to Table 1.
3. In deep joints, the sealant depth must be controlled by closed cell backer rod or soft backer rod. Where the joint depth does not permit the use of backer rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.
4. To maintain the recommended sealant depth, install backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about ¼" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer rod.

SURFACE PREPARATION

Substrates must be structurally sound, fully cured, dry and clean. Substrates should always be free of the following: dirt, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, membrane materials and sealant residue.

CONCRETE, STONE, AND OTHER MASONRY

Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

WOOD

New and weathered wood must be clean, dry and sound. Scrape away loose paint to bare wood. Any coatings on wood must be tested to verify adhesion of sealant or to determine an appropriate primer.

METAL

Remove scale, rust, and loose coatings from metal to expose a bright white surface. Any coatings on metal must be tested to verify adhesion of sealant or to determine an appropriate primer.

PRIMING

1. MasterSeal CR 195 is considered a non-priming sealant, but special circumstances or substrates may require a primer. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Refer to product data sheet on MasterSeal P 173 or MasterSeal P 176, and consult Technical Services for additional information.
2. For immersion applications, MasterSeal P 173 must be used.
3. Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces require more primer; however, do not over-apply.
4. Allow primer to dry before applying MasterSeal CR 195. Depending on temperature and humidity, primer will be tack-free in 15–120 minutes. Priming and sealing must be done on the same day.

APPLICATION

1. MasterSeal CR 195 comes ready to use. Apply using professional grade caulking gun. Do not open cartridges, ProPaks, or pails until preparatory work has been completed.
2. Fill joints from the deepest point to the surface by holding an appropriately sized nozzle against the back of the joint.
3. Dry tooling is recommended. Proper tooling results in the correct bead shape, neat joints and optimal adhesion.

CURING TIME

The cure of MasterSeal CR 195 varies with temperature and humidity. The following times assume 75° F (24° C), 50% relative humidity, and a joint ½" width by ¼" depth (13 by 6 mm).

- Skins: overnight or within 24 hours
- Full cure: approximately 1 week
- Immersion service: 21 days

CLEAN UP

1. Immediately after use, clean equipment with MasterSeal 990 or xylene. Use proper precautions when handling solvents.
2. Remove cured sealant by cutting with a sharp-edged tool.
3. Remove thin films by abrading.

FOR BEST PERFORMANCE

- Do not allow uncured MasterSeal CR 195 to come into contact with alcohol-based materials or solvents.
- Do not apply polyurethane sealants in the vicinity of uncured silicone sealants or uncured MasterSeal NP 150.
- MasterSeal CR 195 should not come in contact with oil-based caulking, silicone sealants, polysulfides or fillers impregnated with oil, asphalt or tar.
- All horizontal applications require the use of MasterSeal P 173.
- Protect unopened containers from heat and direct sunlight.
- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- When CR 195 is to be used in areas subject to water immersion, cure for 21 days at 70° F (25° C) and 50% relative humidity. Allow longer cure time at lower temperatures and humidity.
- Do not use in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers. Avoid submerged conditions where water temperatures will exceed 120° F (50° C).
- Lower temperatures will extend curing times.
- Do not apply over freshly treated wood; treated wood must have weathered for at least 6 months.

- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant. However, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Substrates such as copper, stainless and galvanized steel typically require the use of a primer; MasterSeal P 173 or MasterSeal P 176 is acceptable. For Kynar coatings, use MasterSeal P 173 only. An adhesion test is recommended for any other questionable substrate.
- MasterSeal CR 195 can be applied below freezing temperatures only if substrates are completely dry, free of moisture and clean. Contact Technical Service for more information.
- 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.

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 basfbcsst@basf.com or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,
call ChemTrec® 1(800)424-9300.**

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