



Protective & Marine Coatings

EXPRESSCOTE® 150

CHEMICAL RESISTANT LINING
WITH OPTI-CHECK OAP TECHNOLOGY

PART A
PART B

B62-150
B62V150

SERIES
HARDENER

Revised: October 17, 2018

PRODUCT INFORMATION

TRM.34

PRODUCT DESCRIPTION

EXPRESSCOTE 150 is a ceramic filled, epoxy novolac lining engineered to protect concrete and steel tank interiors from chemicals and corrosive environments at ambient and elevated temperatures. It provides rapid return to service, high film build, and edge retentive protection compared to conventional epoxies.

- Fast return to service
- One coat protection
- Edge Retention > 70%
- Designed for plural-component application equipment
- No crystalline silica, toxic metals or asbestos-form minerals
- Product contains Opti-Check OAP pigment technology for rapid holiday detection with safe blue light inspection lamps

PRODUCT CHARACTERISTICS

| | |
|-----------------------------|------------------------------|
| Finish: | Semi-Gloss |
| Color: | Off White OAP, Haze Gray |
| Volume Solids: | 100%, mixed |
| Weight Solids: | 100%, mixed |
| Mix ratio: | 2:1 (2 components) |
| VOC (EPA method 24): | <50 g/L ; 0.42 lb/gal, mixed |

Recommended Spreading Rate per coat:

| | Minimum | Maximum |
|--|--------------------|-------------------|
| Wet mils (microns) | 20.0 (500) | 30.0 (750) |
| Dry mils (microns) | 20.0 (500) | 30.0 (750) |
| ~Coverage sq ft/gal (m²/L) | 53.0 (1.3) | 80.0 (2.0) |
| Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft | 1604 (39.4) | |

Drying Schedule @ 20.0 mils wet (500 microns):

| | @ 50°F/10°C | @ 77°F/25°C 50% RH | @ 100°F/38°C |
|--|---------------|-----------------------|--------------|
| To touch: | 6 hours | 3 hours | 80 minutes |
| To handle: | 24 hours | 6 hours | 2.5 hours |
| Foot traffic: | 24 hours | 6 hours | 2.5 hours |
| To recoat: | | | |
| minimum: | 8 hours | 8 hours | 8 hours |
| maximum: | 7 days | 7 days | 7 days |
| Cure to service: | 7 days | 24 hours | 24 hours |
| <i>Drying time is temperature, humidity, and film thickness dependent.</i> | | | |
| Pot Life: | 75 minutes | 30 minutes | 15 minutes |
| Sweat-in-Time: | None required | | |

| | |
|---------------------|------------------------------------|
| Shelf Life: | 24 months, unopened at 77°F (25°C) |
| Flash Point: | >200°F (93°C), PMCC, mixed |
| Reduction: | Not recommended |
| Clean Up: | MEK, MAK |

RECOMMENDED USES

For use over prepared concrete and steel in the following industrial and marine exposures:

- Petrochemical storage tanks and piping
- Trenches, troughs, sumps, pits
- Ballast tanks interiors and crude oil storage tank interiors
- Water and waste water facilities
- Where rapid return to service is required
- Meets performance requirements of MIL-PRF-23236
- Chemical Holding Tanks (CHT)
- Well deck overheads
- Acceptable for use with cathodic protection systems
- Ballast tanks
- Fuel tanks
- Fossil fuel power plants/tanks
- Power generation market

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

1 ct. ExpressCote 150 @ 20 mils (500 microns) dft

| Test Name | Test Method | Results |
|--------------------------------------|--------------------------|---------------|
| Adhesion | ASTM D4541, Patti Tester | >2900 psi |
| Cathodic Disbondment | MIL-PRF-23236D | Pass |
| Direct Impact Resistance | ASTM D2794 | 50 in-lbs. |
| Chemical Holding Tank Testing | MIL-PRF 23236D | Pass |
| Flame Spread | MIL-PRF 23236D | Pass |
| Edge Retention | MIL-PRF 23236D | Passes (>70%) |



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RECOMMENDED SYSTEMS

| | | Dry Film Thickness / ct. | |
|-------------------|---------------------------|--------------------------|-----------|
| | | Mils | (Microns) |
| Immersion: | | | |
| Steel: | | | |
| 1 ct. | ExpressCote 150 | 20.0-30.0 | (500-750) |
| Concrete: | | | |
| 1 ct. | Corobond HS Epoxy Primer | 3.0-4.0 | (75-100) |
| 1 ct. | ExpressCote 150 | 20.0-30.0 | (50-750) |
| or | | | |
| 1 ct. | Corobond 100 Epoxy Primer | 4.0-6.0 | (100-150) |
| 1 ct. | ExpressCote 150 | 20.0-30.0 | (500-750) |

Under certain application conditions a "blush" layer may form on the surface of the coating. If a blush forms this must be removed by cleaning with a water detergent solution prior to repair/touch-up.

The systems listed above are representative of the product's use, other systems may be appropriate.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation for immersion:
Iron & Steel: SSPC-SP10, 2-3 mil (50-75 micron) profile
Concrete: SSPC-SP13/NACE 6 or ICRI No. 310.2R, CSP 3-5

Surface Preparation Standards

| Condition of Surface | ISO 8501-1 BS7079:A1 | SSPC | NACE |
|----------------------|----------------------|-------|------|
| White Metal | Sa 3 | SP 5 | 1 |
| Near White Metal | Sa 2.5 | SP 10 | 2 |
| Commercial Blast | Sa 2 | SP 6 | 3 |
| Brush-Off Blast | Sa 1 | SP 7 | 4 |
| Hand Tool Cleaning | Rusted C St 2 | SP 2 | - |
| Pitted & Rusted | C St 2 | SP 2 | - |
| Rusted | C St 3 | SP 3 | - |
| Pitted & Rusted | D St 3 | SP 3 | - |

TINTING

B62V150 Part B 5 gallon Component may be tinted with up to 3 oz of Maxitoner phthalo green or black colorant

APPLICATION CONDITIONS

Temperature: Surface: 50°F (10°C) minimum, 120°F (49°C) maximum
 Air: 50°F (10°C) minimum, 120°F (49°C) maximum
 Material: 100°F (38°C) minimum, 130°F (54°C) maximum

At least 5°F (2.8°C) above dew point.

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information. Material should be stored and kept at or above 50°F (10°C).

ORDERING INFORMATION

Packaging: 15 gallons (56.7L) mixed
 Part A 10 gal (37.8L) in two 5 gal (18.9L) containers
 Part B 5 gal (18.9L) in a 5 gal (18.9L) container
 Weight: 12.4 ± 0.2 lb/gal ; 1.49 Kg/L (mixed)

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use. Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.



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APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel, Immersion Service:

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. For better performance a White Metal Blast Cleaning per SSPC-SP5/NACE 1 can be used. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). Coat any bare steel the same day as it is cleaned or before flash rusting occurs. Remove all weld splatter.

Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 3-5.

Follow the standard methods listed below when applicable:

- ASTM D4258 Standard Practice for Cleaning Concrete.
- ASTM D4259 Standard Practice for Abrading Concrete.
- ASTM D4260 Standard Practice for Etching Concrete.
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
- SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
- ICRI No. 310.2R Concrete Surface Preparation.

APPLICATION CONDITIONS

Temperature: Surface: 50°F (10°C) minimum, 120°F (49°C) maximum
 Air: 50°F (10°C) minimum, 120°F (49°C) maximum
 Material: 100°F (38°C) minimum, 130°F (54°C) maximum

At least 5°F (2.8°C) above dew point.

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reduction.....not recommended

Clean up.....MAK, MEK

Plural Component Equipment

- Pump.....XP70 or Wiwa Duomix 333
- Pressure..... 5000 Psi
- Hose.....3/8" ID minimum
- Gun.....Graco Silver Series or XTR Series
- Tip.....519-.525
- Material temp. @ gun... 100°F (38°C)
- Static Mixing Tubes.....Use a minimum of 2 static mixers. Place one 1/2 " ID 5 " long static mixing tube near the mix manifold. Place a second 1/2 " ID 5" long static mixing tube between the integrated line and whip hose

The material should be 120°F-130°F (49°C-54°C) (vary as needed) at the mixing block for optimal atomization based on tip size and pump pressure.

Do not heat above 140°F (60°C). Material temperature for Part A and B components should be within 20°F of each other during application for mixing purposes.

Brush

For stripe coating or repair only:

Brush.....Nylon/Polyester Natural Bristle

If specific application equipment is not listed above, equivalent equipment may be substituted.

Surface Preparation Standards

| Condition of Surface | ISO 8501-1 BS7079:A1 | SSPC | NACE |
|----------------------|-------------------------|-------|------|
| White Metal | Sa 3 | SP 5 | 1 |
| Near White Metal | Sa 2.5 | SP 10 | 2 |
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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

ExpressCote 150 comes in premeasured containers which when mixed provides 15 gallons (56.7L) of ready-to-apply material.

Mixing Instructions: Mix contents of each component thoroughly with low speed power agitation at slow speeds. Make sure no pigment remains on the bottom or the side of the can. Then fill plural component hoppers with part A and B respectively.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

| | Minimum | Maximum |
|---|-------------|------------|
| Wet mils (microns) | 20.0 (500) | 30.0 (750) |
| Dry mils (microns) | 20.0 (500) | 30.0 (750) |
| ~Coverage sq ft/gal (m ² /L) | 53.0 (1.3) | 80.0 (2.0) |
| Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft | 1604 (39.4) | |

Drying Schedule @ 20.0 mils wet (500 microns):

| | @ 50°F/10°C | @ 77°F/25°C 50% RH | @ 100°F/38°C |
|--|-------------|-----------------------|--------------|
| To touch: | 6 hours | 3 hours | 80 minutes |
| To handle: | 24 hours | 6 hours | 2.5 hours |
| Foot traffic: | 24 hours | 6 hours | 2.5 hours |
| To recoat: | | | |
| minimum: | 8 hours | 7 hours | 7 hours |
| maximum: | 7 days | 7 days | 7 days |
| Cure to service: | 7 days | 24 hours | 24 hours |
| <i>Drying time is temperature, humidity, and film thickness dependent.</i> | | | |
| Pot Life: | 75 minutes | 30 minutes | 15 minutes |
| Sweat-in-Time: | | None required | |

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean tools, spills, and spatters immediately with MAK or MEK. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

Stripe coat all crevices, welds and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas and pinholes. If necessary, cross coat spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, over thinning, climate conditions, and excessive film build.

No reduction of material is recommended, as this can affect film build, appearance and performance.

Brush application is for stripe coating and small areas only.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Guidance on techniques and required equipment to inspect a coating system incorporating Opti-Check OAP Technology can be found in SSPC-TU 11.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended down time with MAK or MEK.

Refer to Product Information sheet for additional performance characteristics and properties.

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