

Harwell BrothersTM

Conquering the War on Rust!TM



250

Vinyl 100 primer

Product Data Sheets



250 Vinyl 100 Primer

Updated 08/06/2022

A low VOC Version of V-766 E Vinyl

Product Data Sheets

Product Description

Harwell Brothers 250 vinyl 100 Primer is a LOW VOC vinyl co-polymer base coating designed especially for aggressive environments. It easily yields up to 4 mils DFT without sag. Exhibits outstanding exterior durability and is recommended where excellent weathering in corrosive atmosphere is desired. Its resistance to acids and alkalis is very good project types and substrates. **Harwell Brothers 250 vinyl 100 finish** has superior immersion and abrasion resistance which makes it suitable for use on immersed surfaces such concrete, metal, wood substrates. It is resistance to most acidic conditions and is ideal for use in facilities which have constant exposure to these type chemicals. Is recommended to be applied over a proper prime coat and manufacturer should be contacted for proper products. **Harwell Brothers 250 vinyl 100 Primer** is fast drying and has dry fall characteristics when spray applied. The dry spray particles can be swept or vacuumed up since they are in powder form when reaching floor level.

- Water and Wastewater Treatment Facilities • Food Processing Facilities
- Pulp and Paper Mills • Tank Interiors • Hydro-power Facilities and Penstocks
- Marine/ Port Facilities • Offshore Platforms • Chemical Processing Facilities
- Refineries • Structural Steel • Ballast Tanks (Salt Water) Work Boats • Pilings • Barges

Product Feature

- Single component Vinyl
- No mixing errors – no pot life
- Apply by brush, roller, (touch up) or spray methods
- VOC compliant at less than 89 g/l
- Immersion and non-immersion service
- UV, impact, and abrasion resistant
- Versatile topcoat for various substrates
- Applied at 85% relative humidity (Maximum)
- Applied 40°-105°
- Dew point restrictions 5° above Dew Point

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General Information

Theoretical Coverage: At 1 mil DFT: 946 ft² /gal at 25-micron DFT: 23.2 m² /l

Recommended Film Thickness: Wet: 1.7-3.4 mils (41-84 µm) Dry: 1.0-2.0 mils (25-51 µm)

Recommended Coverage Per Coat: 473 ft² /gal at 2.0 mils DFT - 946 ft² /gal at 1.0 mils DFT (11.6 m² /l at 51 µm DFT - 23.2 m² /l at 25 µm DFT)

Thinning: Oxsol (Parachlorobenzotrfluoride)/SCAMQD Thinner/Acetone/Xylene

Clean Up: Oxsol (Parachlorobenzotrfluoride)/SCAMQD Thinner/Acetone/Xylene

Recommended Systems

Ferrous Metals (Atmospheric/Severe Exposure):

1st Coat: Harwell Brothers 2955 0 VOC 1.5-2.0 mils DFT

2nd Coat: Harwell Brothers 250 Vinyl primer 100 2-4 mils DFT

3rd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

Total System DFT: 5--10 mils

Aluminum/Non-ferrous Metals/Galvanized Metal

1st Coat: Harwell Brothers 2955 0 VOC .5-1 mils DFT

2nd Coat: Harwell Brothers 250 Vinyl 100 primer 2-4 mils DFT

3rd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

Total System DFT: 4.5-11 mils DFT

Concrete Interior/exterior:

Severe Duty

1st Coat: Harwell Brothers 250 Vinyl 100 primer 2-4 mils DFT

2nd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

3rd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

Total System DFT: 6-12 mils DFT

2 Coat Option

1st Coat: Harwell Brothers 250 Vinyl 100 primer 2-4 mils DFT

2nd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

3rd Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

4th Coat: Harwell Brothers 1208 Vinyl 100 finish 2-4 mils DFT

Total System DFT: 8-16 mils DFT

Note: Severely pitted profiles or extremely rough substrates will result in an additional coat of Harwell Brothers 1208 Vinyl 100 finish. There are other coating systems also contact your Harwell Brothers personal.

Surface Preparation

Ferrous Metals:

Use SSPC-SP1 solvent cleaning or Bio Degreaser to remove oil and grease or other contaminants prior to employing surface preparation methods. Low-Pressure Water Cleaning (LP WC) Cleaning performed at pressures less than 34 Mpa (5,000 psi) with SaltX or equal to or better removing salts and other contaminants (required). Blast clean surfaces for severe chemical immersion service projects to SSPC-SP10/NACE No. 2 Near White Metal finish. Prepare surfaces for 100 % immersion service project to SSPC-SP6/NACE No. 3 Commercial Blast Clean finish. For minimum surface preparation use conscientious SSPC-SP2 hand tool cleaning or SSPC-SP3 power tool cleaning methods to remove corrosion and loose or failing paint (feather edges of sound, existing paint back to a firm edge). High Pressure Water Cleaning SSPC-SP12/NACE No.5 to a minimum WJ3/NV2 may also use to prepare ferrous metal surfaces for atmospheric service projects. Surface preparation methods should produce a surface profile of 1.0 - 2.0 mils (25.4-50.8 µms). Corten/Weathering Steel SaltX or equal (required).

Aluminum/Galvanized/Non-Ferrous Metals

Prepare surfaces using SSPC-SP1 Solvent Cleaning and SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement weathered galvanized surface preparation with SSPC-SP2 and SP3 Hand and Power Tool cleaning to remove excessive corrosion and impart surface profile on bare metal. Supplement new galvanized surface cleaning with SSPC-SP16 to impart surface profile and support mechanical adhesion. SaltX or equal to or greater, is required always in cleaning. (SaltX bio degreaser preferred).

Concrete/concrete Block

The surface must be dry, free of surface contaminants, and in sound condition. Grease, and oil required removal by ASTM D4258-83 (Re-approved 1999) and release agents require removal by ASTM D4259 - 88 (Re-approved 1999). Refer to SSPC-SP13/NACE No 6 mechanical or chemical surface preparation methods for preparing concrete to suitable cleanliness for intended service. Surface preparation methods should impart sufficient surface profile for mechanical adhesion to occur. Ensure substrate turns out thoroughly rinsed and dry prior to coating application. Allow a minimum 7 - 14 days cure time for new concrete prior to preparation and application (SaltX products preferred).

Previously Existing Coatings

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination (SaltX perfumed), Supplement SSPC-SP 12 LPWC with SSPC-SP1 Solvent Cleaning and SSPC-SP2 and 3 Hand/Power Tool clean areas of corrosion and loose or flaking paint (feather edges of sound, existing paint back to a firm edge). Spot prime clean, bare metal with Harwell Brothers recommended primer for maximum system performance. Sand glossy surfaces to provide profile.

Good Practices

Harwell Brothers 250 vinyl 100 Primer, designed for application to a variety of substrates and tightly adhered previously existing coatings. Apply a test sample to a small area to determine coating adhesion and/or compatibility. Spot prime any areas cleaned to bare metal with a Harwell Brothers recommended primer for maximum system performance. When using **Harwell Brothers 250 vinyl 100 Primer** in immersion or severe environments, apply over a recommended Harwell Brothers primer. The substrate to coat must be dry, clean, dull, and free from dirt, grease, oil, rust, mill scale, salts or any other surface contaminants that interfere with adhesion. Ensure welds, repair areas, joints, and surface defects exposed by surface preparation, thoroughly cleaned, and treated prior to coating application. Consult the referenced standards, AMPP (NACE/SSPC) and your Harwell Brothers Representative for additional information or recommendations

Application Information

Harwell Brothers 250 Vinyl 100 Primer, applied by brush, roll, mitt, airless spray, and conventional spray application. Follow proper mixing instructions before applying.

Mixing:

Material temperature must be 5°F above the dew point before opening and agitating. Agitate with mechanical agitation at slow speed to avoid incorporation of moisture. **Do not keep under constant agitation.** Apply a 3-6 oz solvent float over material to prevent moisture intrusion and cover bucket.

Brush/Roller:

Brush: Natural Fiber
 Roller: Natural or synthetic fiber cover
 Nap: ¼" to ⅜"
 Core: Phenolic
 Reduction: Typically, not required.

Conventional Spray/HLVP:

	Fluid Tip:	Air Cap:
DeVilbiss-MBC 510	E	765
Binks - Model 18	66	63PB
Atomizing Air:	45 - 75 lbs.	
Fluid Pressure:	15 - 20 lbs.	
Hose:	½" ID; 50' Max	
Reduction: T	Typically, not required	

Airless Spray:

Pump Ratio: 28:1 - 45:1
 Golden gun/Speeflo Commander 30 with H Gun
 Silver Gun or Contractors Gun
 Tip: .013 / .015 / .017 orifice.
 Filter Size: 60 mesh (250 µm)
 Reduction: Typically, not required.
 Do not thin if VOC Regulations are effective.
 Do not add thinner to reduce viscosity
 increase to partial containers remaining
 from previous work.

Reducer:

Oxsol (Parachlorobenzotrfluoride) SCAMQD Thinner

Clean up:

Oxsol (Parachlorobenzotrfluoride) SCAMQD Thinner
 Acetone
 Acetone, use flush lines with SCAMQD Thinner or
 Oxsol

Care concentrated on, clean spray lines after use to keep material from hardening.

Application Conditions

Temperature: 20°-100°F (-8°-38° C). This temperature range should come about for ambient, surface and material temperature. Substrate must be visibly dry and frost free. On applications below 33°F, Steel temperatures should be 5°F above the dew point temperature. Oxsol/ SCAMQD Thinner recommended for spray application in temperatures above 90°F.

Relative Humidity: 6% - 99%. (Normal 50%-85%)

Storage: Store off the ground in a dry, protected area in temperature between 40°-100°F (4°-38°C). MCU containers must without exception sealed when not in use. Use a solvent float to reseal partial containers.

Dry Time:

*At 50% Humidity

	50°F/10°C	75°F/24°C	95°F/35°C
Tack Free	3 Hours	1 ½ Hours	45 minutes
Re-coat Minimum	8 Hours	4 Hours	1 ½ hours
Full Cure	11 days	8 days	6 days

Testing

Substrate*: Steel/concrete

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*: Harwell Brothers 1208 vinyl 100 finish

1 Coats of Harwell brothers 250 vinyl 100 primer 4 mils/100 µms

2 Coat of Harwell Brothers 1208 100 vinyl finish 6 mils/150 µms

Test Name	Test Method	Results
Adhesion	ASTM D4541 Steel	1000 PSI
Adhesion	ASTM D4541 Concrete	600 PSI
Direct Impact Resistance	ASTM D2794	150 in. lb.
Salt Fog Resistance	ASTM B117, 6,000 hours	Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Fall Test	ASTM D968	30 liters

Safety

Material Safety Data Sheets for handling, storage, disposal, and use. NON-WARRANTY: The information herein is based upon the best information available at time of printing and data provided for those having skill and ability to use products as recommended. Harwell Brothers Coatings assumes no warranties, either implied or expressed, as to the purchase or application of these products, with the sole exception that if the Seller delivers off standard materials, the Seller will, at its option, either replace the material or refund the full purchase price. Nothing contained herein shall construed as a recommendation to use this product in conflict with any existing patent.