Harwell Brothers™

Conquering the War on Rust!™

2808

Moisture Cure Urethane
Coal Tar Urethane

Product Data Sheets

Harwell Brothers™

Tar 2808 100

A Moister Cure Urethane Tar

Updated 04/22/2022

Product Data Sheets

Product Description

Harwell Brothers Tar 2808 100, moisture-cure urethane for ferrous, non-ferrous metal, Concrete, and wood substrates. The design benefit of the penetrating nature of this primer/sealer/Finish allows for superior adhesion, combined moisture-cure urethane technology, micaceous iron oxide, and refined tar resin to produce a superior corrosion resistant coating. Harwell Brothers Tar 2808 100 has proven performance in severe exposure and is recommended for application on various substrates for immersion, atmospheric, and buried environments. It can provide outstanding barrier protection in one-coat or multi-coat systems.

• 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 Moisture Cure Urethane
• No mixing errors – no pot life
• Easy to apply by brush, roller, mitt, or spray methods
• Performance compatible to coal tar epoxy coatings
• VOC compliant at 100 g/l
• Maintains build on edges, threads, and weld seams
• Immersion and non-immersion service
• Applied at 99% relative humidity (substrate must be visibly dry)
• Applied in below freezing temperatures (no ice or frost)
• No dew point restrictions (substrate must be visibly dry)
• No outer re-coat window on clean surfaces
• Remains flexible over time

General Information

Theoretical Coverage: At 1 mil DFT: 1029 ft2 /gal (25 µm DFT: 25.1m2 /l)
Recommended Film Thickness: Wet: 7.8-10.9 mils (198-276 µm) Dry: 5.0-7.0 mils (127-179 µm)
Recommended Coverage Per Coat: 146 ft2 /gal at 7.0 mils DFT - 205 ft2 /gal at 5.0 mils DFT (3.57 m2 /l at 179 µm DFT – 5.0 m2 /l at 127 µm DFT)
Thinning: Oxsol (Parachlorobenzotrfluoride)/SCAMQD Thinner/Acetone
Clean Up: Oxsol (Parachlorobenzotrfluoride)/SCAMQD Thinner/Acetone

Recommended Systems

Ferrous Metals (Atmospheric/Severe Exposure):
1st Coat: Harwell Brothers 2955 0 VOC (spot prime) 1.5-2.0 mils DFT
2nd Coat: Harwell Brothers 2955 0 VOC 3.0-5.0 mils DFT
3rd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
4th Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
Total System DFT: 13.0-19.0 mils

Ferrous Metals (Salt or Fresh Water Immersion):
1st Coat: Harwell Brothers 2955 0 VOC 2.0-4.0 mils DFT
2nd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
3rd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
Total System DFT: 12.0-18.0 mils DF

Aluminum/Non-ferrous Metals/Galvanized Metal
1st Coat: Harwell Brothers 2955 0 VOC 2.0-3.0 mils DFT
2nd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
Total System DFT: 7.0-10.0 mils DFT

Concrete Interior/exterior:
Severe Duty
1st Coat: Harwell Brothers 2955 0 VOC 3.0-4.0 mils DFT
2nd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
3rd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
Total System DFT: 11.0-18.0 mils DFT
2 Coat Option
1st Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
2nd Coat: Harwell Brothers Tar 2808 100 5.0-7.0 mils DFT
Total System DFT: 10.0-14.0 mils DFT
Note: Severely pitted profiles or extremely rough substrates will result in an additional coat of Harwell Brothers Tar 2808 100 Tar. 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 contaminates (this is 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 projects 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 be used 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 Stee

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 SSPCSP2 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 will be used at always in cleaning.

Concrete/concrete Block

The surface must be dry, free of surface contaminants, and in sound condition. Grease, and oil should be removed by ASTM D4258-83 (Re-approved 1999) and release agents should be removed 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 surface is thoroughly rinsed and dry prior to coating application. Allow a minimum 7 - 14 days cure time for new concrete prior to preparation and application.

Previously Existing Coatings

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement SSPC-SP 12 LPWC with SSPC-SP1 Solvent Cleaning and SSPC-SP2 and 3 Hand and 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 Tar 2808 100 is designed for application to a variety of substrates and tightly adhering, 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 Tar 2808 100 in immersion or severe environments, apply over a recommended Harwell Brothers primer. The surface to be coated 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 are properly cleaned and treated prior to coating application. Consult the referenced standards, SSPC-PA1 and your Harwell Brothers Representative for additional information or recommendations

Application Information

Harwell Brothers Tar 2808 100 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 pail.

Brush/Roller:

Brush:	Natural Fiber
Roller:	Natural or synthetic fiber cover
Nap:	¼" to ⅜"
Core:	Phenolic
Reduction:	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:	.015/ .017/.019 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

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:	Typically, not required	

Reducer:
Oxsol (Parachlorobenzotrfluoride) SCAMQD
Thinner

Clean up:
Oxsol (Parachlorobenzotrfluoride) SCAMQD
Thinner
Acetone

increase to partial containers remaining from previous work.

If Acetone is used flush lines with SCAMQD Thinner or Oxsol

Care must be taken to clean spray lines after use to keep material from hardening.

Application Conditions

Temperature: 20°-100°F (-8°-38° C). This temperature range should be achieved 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 is 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 be kept 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 Tar 2808 100
2 Coats of Harwell Brothers Tar 2808 100 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	55 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 are intended for those having skill and ability to use products as recommended. Harwell Brothers 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 be construed as a recommendation to use this product in con

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