

SHER-BAR[™] COATINGS FUSION-BONDED EPOXY



FROM SPEC TO PROTECT

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ROBUST PROTECTION. EFFICIENT APPLICATION.

The Sherwin-Williams Sher-Bar fusion-bonded epoxy coating line provides optimum corrosion protection for steel reinforcing bar, piling, dowel bar and related components critical to long-term structural performance. Formulated to match the demands of pre-fabrication, post-fabrication and in-field application, Sherwin-Williams ensures uniform coatings coverage and protection across a broad range of application environments.

From bridges to commercial structures and the roads in between, Sherwin-Williams provides customers with proven, dependable products that stand the test of time. Sherwin-Williams Sher-Bar is widely approved and available around the world.

BENEFITS

- Optimum corrosion protection
- Maximum flexibility for fabrication
- Designed for application on fast production lines
- Proven barrier to de-icing salts and chlorides

USES

- Bridges
- Commercial structures
- Roads
- High-value infrastructure



OUR SHER-BAR[™] POWDER PORTFOLIO

Product Line	Application	Benefits
Sher-Bar Green	Pre-Fabrication	 Achieves ASTM A775, ASTM A884, AASHTO M284, ASHTO M254 specifications High flexibility; no cracking during fabrication process
Sher-Bar Purple	Post-Fabrication	Achieves ASTM A934 specificationStrong chemical resistance and corrosion protection
Sher-Bar TEC™	Pre-Fabrication	 Achieves ASTM 1124 specification Enhances performance of ASTM A775 Increases rebar grip to concrete Supports sustainable infrastructure Increased installation speed and worker safety
Sher-Bar Touch Up	Field Repairs	 Achieves ASTM D3963 specification Compatible with all Sher-Bar products Convenient packaging allows for repairs in harsh and demanding field environments

SHER-BAR[™] GREEN

FUSION-BONDED EPOXY COATING

WHY CHOOSE SHER-BAR GREEN?

Engineered to extend the service life of steel reinforced concrete structures, Sher-Bar Green fusion-bonded epoxy provides optimum corrosion protection for steel reinforcing bar, dowel bar and related components critical to long-term structural performance. The coating is designed for application on fast production and custom coating lines. Fused to the steel surface during application, the thermoset polymer structure provides an exceptional barrier to the corrosive effects of chlorides. Sher-Bar Green fusion-bonded epoxy ensures maximum corrosion resistance on steel reinforcing bars and related components.

SHER-BAR GREEN ADVANTAGES:

Proven Technology: Superior coating mileage, consistently low holidays and minimized cobwebbing.

Corrosion Resistance: Industry-leading formulation of rugged coatings that provide optimum corrosion protection; and proven barrier to de-icing salts, water and chlorides.

Increase Productivity: Maximum flexibility for fabrication; designed for fast production line speeds, optimizing manufacturing rates.



Dependable Supply Chain: Established product available on demand and qualified for use by a strong network of applicators.

Extensive Approvals: Approved for use in all 50 states in the U.S. and numerous regions around the world.

Sustainability: Zero-VOC emissions, efficient application and ability to reclaim powder all help meet global compliance requirements.

SHER-BAR GREEN TEST RESULT SUMMARY

Extensive certification testing has been done on Sherwin-Williams Sher-Bar Green coatings. Below is a summary chart showing compliance to the ASTM A775 specification

Test	A775-07b/AASHTO M284-08 Specification	Test Outcome
Chemical resistance	No blistering, softening, bond loss or holiday development after 45 days	Pass
Cathodic disbondment	Average coating disbondment radius for three bars not to exceed 0.16 in. (4 mm)	Pass
Salt spray resistance	Average coating disbondment radius for three bars not to exceed 0.12 in. (3 mm)	Pass
Chloride permeability	Concentration of ions permeating through film shall be less than 1 \times 10-4 M	Pass
Coating flexibility	No cracking of the coating shall be visible on outside radius of bent bars	Pass
Relative bond strength	Mean bond strength of coated bars shall be 85% of that demonstrated by uncoated bars of same deformation pattern (Rr=0.082)	Pass
Abrasion resistance	No more than 0.0035 oz. (0.100 g) of coating shall be lost on each of three panels	Pass
Impact resistance	No shattering, cracking or bond loss of coating except at impact area	Pass

SHER-BAR[™] PURPLE

FUSION-BONDED EPOXY COATING

WHY CHOOSE SHER-BAR PURPLE?

Prefabricated rebar coatings are a great option to extend the service life of steel reinforced concrete structures. Designed for prefabricated reinforcing steel and related components, the coating provides corrosion protection that is critical to long-term infrastructure performance. The coating is designed for application on a variety of coating lines for preformed parts and accessories. Fused to the steel surface during application, the thermoset polymer structure provides an optimum barrier to the corrosive effects of chlorides.



SHER-BAR PURPLE ADVANTAGES:

- Optimum corrosion protection.
- Exceptional cathodic disbonding resistance.
- Designed for application on various production lines.
- Meets ASTM A934/A934M.

SHER-BAR PURPLE PERFORMANCE PROPERTIES POST-FAB REBAR COATING ASTM A934/A934M

Property	Test	Performance
Cathodic disbondment ambient	ASTM G8 168 hours, -1.5 volts relative to standard calomel electrode, 3% NaCl, 24°C/74°F	0.9 mm average
Chemical resistance	ASTM G20 45 days, 24°C/75°F immersed in: • Distilled water • 3 M CaCl2 • 3 M NaOH • Saturated Ca(OH)2	Pass
Salt spray resistance	ASTM B117 800 hours, 5% NaCl, 35°C/95°F	1.5 mm average
Chloride permeability	ASTM A775/A775M 45 days, 3 M NaCl/deionized water permeability cells, 24°C/74°F	<5.6 x 10-5 M chloride ion concentration
Coating flexibility	ASTM A934/A934M 6° bend (after rebound) around 150 mm/6 inch mandrel	No cracking or visible loss of adhesion
Relative bond strength	ASTM A944 Pullout of bars cast in concrete	Mean bond strength of coated bars 88.5% of that of uncoated bars from same heat
Abrasion resistance	ASTM D4060 Taber abraser, CS-10 wheels, 1 kg/2.2 lb load per wheel, 1000 cycles	Maximum weight loss 3.55 x 10-2 g
Impact resistance	ASTM G14 24°C/75°F, 4.5nm impact	No shattering, cracking or bond loss, except at impact area
Elevated temperature	24 hours, -3.0 volts relative to standard calomel electrode, 3% NaCL, 24°C/75°F	2.3 mm average

SHER-BAR[™] TEC

FUSION-BONDED EPOXY COATING

WHY CHOOSE SHER-BAR TEC?

Using advanced technology, Sher-Bar TEC (Textured Epoxy Coating) is the first damage-resistant epoxy coating for rebar, engineered to further extend the service life of steel reinforced concrete structures. With improved bond strength, damage tolerance and corrosion resistance, Sher-Bar TEC reduces the severity of cracks within the concrete, thereby decreasing chloride penetration and the rate of deterioration within the structure. This combination enhances long-term structural performance while reducing the frequency of maintenance repair, downtime and costs.

SHER-BAR TEC ADVANTAGES:

Improved Bond Strength to Concrete: Improved crack mitigation leading to reduction in micro-cracking and chlorides penetration. **Improved Damage Tolerance:** Effects of rough handling and installation are demonstrably reduced, maintaining the integrity of the ASTM A775 base layer.

Improved Corrosion Resistance: Protecting the ASTM A775 base layer from damage leaves an intact barrier coating which extends asset life and maximizes total benefit analysis.



Safety: Reduced workplace slippage. Sustainability: Made with up to 30% upcycled materials.

Enabling: Allows uses of alternative cementitious materials. **Efficiency:** Reduced congestion leading to faster construction.

SHER-BAR TEC TEXTURE TEST RESULT SUMMARY

Extensive certification testing has been done on Sherwin-Williams Sher-Bar TEC coatings. Below is a summary chart showing compliance to the ASTM A1124 specification.

Test	A1124 Specification	Test Outcome
Chemical resistance	No blistering, softening, bond loss or holiday development after 45 days	Pass
Cathodic disbondment	Average coating disbondment radius for three bars not to exceed 0.16 in. (4 mm)	Pass
Salt spray resistance	Average coating disbondment radius for three bars not to exceed 0.12 in. (3 mm)	Pass
Chloride permeability	Concentration of ions permeating through film shall be less than $1 \times 10-4$ M	Pass
Coating flexibility	No cracking of the coating shall be visible on outside radius of bent bars	Pass
Relative bond strength	The mean bond strength of the coated bars shall not be less than 96% of the mean bond strength of the uncoated bars. ASTM A944	Pass
Impact resistance	The test shall be performed at 75 °F, 6 3.6 °F (24 °C, 6 2 °C). With an impact of 160 in. Ibf (9 Nm), no shattering, cracking, or bond loss of the coating shall occur except at the impact area, that is, the area permanently deformed by the tup. ASTM G14	Pass
Coating texture	The average of five measurements shall have an Rz value between 8 and 18 mils (200 µm and 460 µm). ASTM D7127	Pass
Standard test method for chipping resistance of coatings	After testing, each panel shall have a Chip Rating of 10. The textured coating shall display no holidays to the substrate regardless of size. ASTM D3170	Pass

SHER-BAR[™] TOUCH UP

2K EPOXY FOR FUSION-BONDED EPOXY COATING

SHER-BAR TOUCH UP

Two-component epoxy coating Sher-Bar Touch Up Coating is designed for making repairs to rebar coated with Sher-Bar fusion-bonded epoxy that are compliant with A775, A934 and A1123. The material is formulated to provide excellent resistance to corrosion.





SHER-BAR[™] FUSION-BONDED EPOXY COATINGS FOR REBAR

THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems that excel at combating corrosion helps customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Energy, Water & Wastewater, Bridge & Highway, Steel Fabrication, Flooring, Manufacturing & Processing, Fire Protection, Marine, Rail, and Power.



Unparalleled distribution network



Global industry expertise



Most extensive sales organization coverage



Unmatched technical and specification service

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