Protective & Marine Coatings

SHER-FRICTION™

PART A B97C2
PART B B97V2

SERIES HARDENER

Revised: June 29, 2021

PRODUCT INFORMATION

PRODUCT CHARACTERISTICS

SHER-FRICTION™ is a two-component, low modulus, solvent-free, water resistant epoxy binder specifically designed for use in bridge deck overlays and high friction surface treatments (HFST). It conforms to the current ASTM C-881, Type III, Grade 2, Class B and C, and AASHTO M-235 specifications.

SHER-FRICTION™ is formulated for lower temperature applications to extend the application window, rapid cure times for faster return to service, is highly resistant to typical road chemical leaks and spills and has excellent adhesion to concrete and asphalt surfaces.

SHER-FRICTION™ cures to "sweep time" in 2 hours or less when properly applied at temperatures of 70°F or greater. Longer cure time will be experienced at lower temperatures. SHER-FRICTION™ can be applied down to 45°F to extend the application season and allow for night time applications. SHER-FRICTION™ should not be applied when air or surface temperatures fall below 45°F.

Shelf Life: 12 months, unopened. Store indoors at 45°F (7°C) to 100°F (38°C).

APPLICABLE SPECIFICATIONS

- ASTM C881 Type III, Grade 2 Class B and C
- AASHTO M235 Type III, Grade 2
- AASHTO PP 79-14

MIXING

- 1:1 mix ratio by volume
- Automatic Method – Use 2 ea 24" static mixers or 1 ea 48" static mixer. It is recommended that the material be heated to 100°F for optimal flow and cure development.
- Manual Method – Pour part A into part B ensuring equal volumes. Use low speed drill and Jiffy type mixing blade for 1 minute. Mix just enough material that can be used within the working pot life.

RECOMMENDED USES

SHER-FRICTION™ protects and provides wearing surfaces for concrete bridge decks and pavements; provides increased coefficient of friction, when paired with appropriate polish resistant aggregates

- Bridge decks
- Transportation hubs
- Steep grades
- Horizontal curves
- Intersections
- Parking decks
- Approaches to crosswalks and stops

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Viscosity - Mixed (#4 Spindle, 20 PM)	ASTM D2556	3000 – 5500cps
Gel Time (60 g at 75°F)	AASHTO M235	> 17 minutes
Tensile Strength	AASHTO M235	>2,700 psi avg.
Elongation at Break	AASHTO M235	>30% avg.
Durometer Hardness	ASTM 2240	>70
Compressive Strength	ASTM C579	>3,500 psi avg.
Cure Rate (Dry-Through time), 50 mils at 73°F	ASTM D1640	75 minutes
Water Absorption 7 Day Cure 24 Hr. Immersion	ASTM D570	0.15%

Figure 1

Sher-Friction Part A & Part B

Viscosity versus Temperature

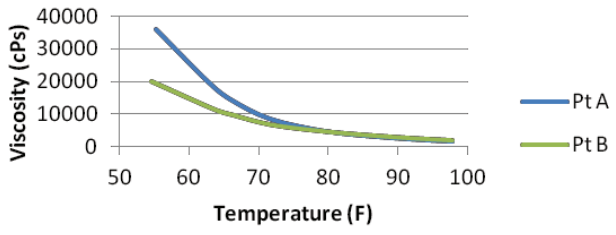
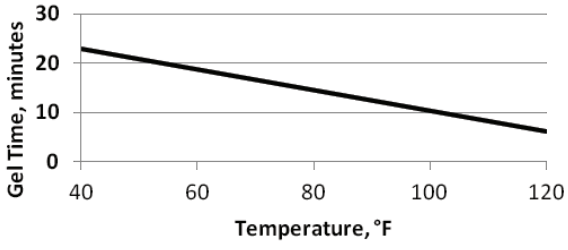


Figure 2

Sher-Friction Gel Time

(per ASTM C881 – 60 gram mass)



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SURFACE PREPARATION

- Concrete surfaces should be prepared by use of a shot blast machine. Surface profile range for concrete shall between CSP 5 - 7 in accordance with ICRI Guideline #310.2 as compared to surface profile replica coupons. Surface profile, soundness and cleanliness shall be evaluated after shot blasting. Suspect areas shall be retreated until deemed acceptable for overlay treatment. Just prior to beginning overlay, remove all dust and other loose material using high pressure compressed air.
- Asphalt must be sound, dry, and free of all dust, oil, debris and other contaminants. If necessary, remove contaminants via mechanical abrading, shot blast or high pressure power wash. Surface soundness and cleanliness shall be evaluated after initial preparation. Suspect areas shall be retreated until deemed acceptable for overlay treatment. Just prior to beginning overlay, remove all dust and other loose material using high pressure compressed air.
- Pretreat joints and cracks > ¼" in width and depth by filling with aggregate and then saturating with mixed epoxy. After pretreated areas have gelled (see figure 2), installation can proceed.
- For installations on new asphalt, a 30 day cure period will enhance optimal results.
- For new concrete surfaces, all curing compounds should be completely removed.

CURE RATES

SHER-FRICTION™ High Friction Surface Treatment Schedule

Surface Temperature (°F)	Sweep Time (hours)	Return to Service Time (hours)
45	4	6
50	3.5	5
60	3	4
70	2.5	3.5
77	2	3
80	1.5	2.5
90	1	2
100	1	1.5
110	0.75	1.5
120	0.75	1.5

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.

COVERAGE

Bridge Deck Overlay Application: Apply thoroughly mixed SHER-FRICTION™ epoxy at a rate of 60 mils wet (approximately 25 ft²/gallon) on smooth surfaces as a binder for Flint, Calcined Bauxite, or other approved aggregate. Immediately broadcast aggregate to refusal (approximately 15#/ yd²). If areas of uncovered binder are evident in the surface, reapply aggregate to the area until no binder is visible. Allow SHER-FRICTION™ to cure to the appropriate sweep time based on the Cure Rates table above. Sweep excess aggregate with a mechanical sweeper. Repeat the application process for the second lift at the same application rates.

High Friction Surface Treatment Application Concrete and Asphalt Surfaces: Apply thoroughly mixed SHER-FRICTION™ epoxy at a rate of 60 mils wet (approximately 25 ft²/gallon) on smooth surfaces as a binder for Calcined Bauxite aggregate. Immediately broadcast aggregate to refusal (approximately 15#/ yd²). If areas of uncovered binder are evident in the surface, reapply aggregate to the area until no binder is visible. Allow Sher-Friction to cure to the appropriate sweep time based on the Cure Rates table above. Sweep excess aggregate with a mechanical sweeper.

Tined Concrete or Open Course Asphalt Surfaces: SHER-FRICTION™ binder application rates will be higher for surfaces with a high amount of texture and a site assessment by the applicator will be necessary to determine the correct application rate.

THINNING AND CLEANUP

Thinning is strictly prohibited. Sher-Friction may be cleaned up with acetone or MEK.

ORDERING INFORMATION

Standard packaging for the Components is 55-gallon drums or 250-gallon IBC containers/totes with a polyethylene liner.

SAFETY PRECAUTIONS

Refer to the SDS 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.