

EnduraShield 2301

Gloss Acrylic Aliphatic Urethane Technical Data Sheet (TDS)

PRODUCT DESCRIPTION

Two-component, gloss acrylic aliphatic urethane

PRINCIPAL CHARACTERISTICS

- High gloss topcoat with unlimited recoatability
- Outstanding weather resistance with excellent color and gloss retention
- VOC compliant for 2.08 VOC requirements
- Tough, flexible and abrasion resistant

APPLICATION DATA SUMMARY

See Application Instructions for complete information on surface preparation, equipment, environmental conditions, application procedures, and safety precautions. For conditions outside the specifications or limitations described, contact Wolverine Coatings Corporation for details.

SURFACE PREPARATION

Coating performance is directly related to the quality and degree of surface preparation. Prior to overcoating, all surfaces must be clean, dry, undamaged, and free of all contaminants. For more specific information, consult the surface preparation section contained in the Application instructions.

SAFETY PRECAUTIONS

Prior to commencing work, carefully read and follow all SDS (formerly MSDS), Technical Data Sheets, and any instruction manuals for products and equipment used during installation. Following the safety regulations of jobsite, local, state, and federal authorities is the responsibility of the installation company, general contractor, and/ or facility owner. Safety precautions in the SDS should be carefully followed during storage, handling and use. Improper use and handling can be hazardous to health and cause fire or explosion.

APPLICATION DATA

Substrate:	Primed concrete, blasted steel			
Surface Preparation				
Steel SSPC-SP5 Abrasive Blast				
Concrete Properly prepared & primed				
Application Method: Air Spray, Airless Spray, Roller of Brush				
*The application of urethane products through spraying poses significant health risks. If your project requires spray application of EnduraShield 2301, we recommend contacting your Wolverine Coating Representative for guidance and assistance.				
Mixing: Packaged in pre-measured containers consisting of Resin Part A and Hardener Part B which must be mixed together before use.				
Mix Ratio 1 Part "A" to 5 Part "B" (By Volume)				

APPLICATION DATA (CONTINUED)

Mixing Instructions for Pigmenting with ColorMeld 7250

- 1. Prior to installation, consult the WCC Technical Information Bulletin (TIB): "Mixing Guide" for guidance.
- 2. Pre-mix the Hardener (Part B) and then add into a mixing container. Use a stir stick or paint paddle to empty the entire container of Hardener (Part B) into the mixing container.
- 3. Premix the Resin (Part A) and slowly pour into the mixing container containing the Hardener. Use a stir stick or paint paddle to empty the entire container of Resin (Part A) into the mixing container.
- 4. Slowly begin mixing the material using a low-speed drill and mixing paddle. Gradually increase the speed and mix for 2-3 minutes to achieve a well-blended mixture.
- 5. Once the ColorMeld 7250 (Part C) is pre-mixed, slowly add it to the Resin-Hardener mixture in the mixing container. Use a stir stick or paint paddle to empty the entire container of ColorMeld 7250 into the mixing container.
- 6. Slowly begin mixing the material again using a low-speed drill and mixing paddle. Gradually increase the speed and mix for 2-3 minutes or until the ColorMeld 7250 is thoroughly blended into the mixture.
- 7. During the mixing process, exercise caution to prevent the introduction of air bubbles into the mixture.
- 8. Periodically scrape around the walls and edges of the mixing container using a stir stick or spatula to ensure complete incorporation and uniformity of the materials.
- 9. Transfer the mixed mixture into a designated transfer container and mix for an additional minute.
- 10. Apply the mixture as soon as possible after completing the mixing process.

Application Environmental Conditions						
Temperature Range:		20-140°F				
Relative Humidity:		>85%				
Surface Temperature:		20-140°F *Do not apply unless the surface temperature is more than five degrees above dew point.				
Thinner		Acetone				
Equipment Cleaner		MEK				
PROPERTY	VA	LUE	TEST METHOD			
Components:	Tw	' O	N/A			
Volume Solids:	70	± 3% (Mixed)	N/A			
Total Coats:	1 or more		N/A			

SOLID (CURED) PHASE PHYSICAL DATA

Application Thickness and Coverage					
Recommended Dry Film Thickness: 3 mils 534 Ft ² / gal					
Minimum Application Thickness:	2 mils	802 Ft ² / gal			
*Material applied too thin may result in inadequate leveling and the formation of an irregular film.					
Maximum Application Thickness: 4 mils 401 Ft ² /gal					
*When material is applied excessively thick, it can lead to the formation					

*When material is applied excessively thick, it can lead to the formation
of blisters, gas pockets, and a soft finish that fails to properly cure.

PROPERTY	VALUE	TEST METHOD ASTM D523		
Finish:	Gloss			
Color:	Clear (CL0A)	ASTM D1544		

LIQUID PHASE PHYSICAL DATA

Cure Schedule (@ 50% RH) (ASTM 5895)							
50°F 70°F 90°F							
Tack Free	6 Hours	1.5 Hours					
Overcoat	12 Hours	5 Hours	2.5 Hours				

PROPERTY	VALUE	TEST METHOD		
VOC:	max. 2.0 lb/US gal (approx. 241 g/l)	ASTM D3960		

SHIPPING DATA

Packaging:	1 Gallon Kit, 5 Gallon Kit
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STORAGE

Shelf Life (indoors @ 65-90°F):					of	manufacture
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Do not open containers until ready to use. Keep sealed containers in a cool, dry place. Avoid contact with sources of extreme hot or cold temperatures as well as direct sunlight. Containers should be stored at 65°F to 90°F. Shelf life is one (1) year if exposed to the above conditions.

GENERAL LIMITATIONS

Do not apply directly to concrete. Surfaces should be primed with epoxy primer.

Touchup or repair of an existing coating is never aesthetically perfect.

Exceeding recoat window or contamination may cause disbonding, fish eyes, and / or crawling.

Although EnduraShield 2301 is a UV stable clearcoat, it may not protect underlying epoxy coats from UV degradation such as chalking and yellowing. To prevent UV radiation from reaching the undercoating(s), it is necessary to increase the opacity of the EnduraShield 2301. This is especially true when any coatings are being applied outdoors. To achieve hiding and the highest UV protection to any underlying coatings, ColorMeld 7250 must be added to the EnduraShield 2301. Some ColorMeld 7250 colors may require multiple coats to achieve full hiding and therefore, prevent any UV radiation from affecting the coating system. If full UV exposure is required and/or more information is needed, contact your Wolverine Coatings representative.

SAFETY

For your safety, all required personal protection equipment should be used when operating machinery or handling chemicals. Concrete dust is a source of silica particles and other hazardous materials that can cause silicosis and other illnesses. Proper safety equipment and methods are the responsibility of the installation company, general contractor, and/or facility owner.

WARRANTY

Wolverine Coatings Corporation warrants its products to be free from defects in material and workmanship. Wolverine Coatings Corporation's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Wolverine Coatings option, to either replacement of products not conforming to this Warranty or credit to the Buyer's account in the invoiced amount of the nonconforming products. Any claim under this warranty must be made by the Buyer to Wolverine Coatings in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the ship date, whichever is earlier. Buyer's failure to notify Wolverine Coatings of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

Wolverine Coatings makes no other warranties about the product. No other warranties, whether expressed, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply.

Any recommendation or suggestion relating to the use of the products made by Wolverine Coatings, whether in its technical literature, or in response to specific inquiry or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedure of use, or extrapolation of data may cause unsatisfactory results.

LIMITATION OF LIABILITY

Wolverine Coatings Corporation's liability on any claims based upon Wolverine Coatings Corporation's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or parts thereof which give rise to the claim. In no event shall Wolverine Coatings Corporation be liable for consequential or incidental damages.

LITERATURE REVISION - TDS: EnduraShield 2301 - Rev. 250203 Published literature is subject to change without notice. Wolverine Coatings Corporation is constantly engaged in the testing of existing formulations, the development of new innovative technologies, and the evaluation of the latest practices. The latest literature should always be consulted at www.wolverinecoatings.com.



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