

EnduraShield 2254

High Solids Clear Hybrid Urethane Topcoat Technical Data Sheet (TDS)

PRODUCT DESCRIPTION

EnduraShield 2254 is a High Solids two component aliphatic clear gloss hybrid urethane applied over an epoxy primer or epoxy system. It can also be used to recoat an existing epoxy or urethane floor. Adding WearResist 105 additive will give a satin finish, increase the coefficient of friction (slip resistance), and increase abrasion resistance further. Adding SpheriTex 110 additive will increase the texture more than WearResist 105 but will maintain a glossier appearance. ColorMeld 7250 may be used for pigmentation.

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:	Roller or brush			
*The application of urethane products through spraying poses significant health risks. If your project requires spray application of EndruaShield 2254, we recommend contacting your Wolverine Coating Representative for guidance and assistance.				
Induction Period:	None			
Mixing: Packaged in pre-measured containers consisting of Res Part A and Hardener Part B which must be mixed together before use.				
Mix Ratio 1 Part "A" to 4 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:		50-90°F			
Relative Humidity:		30-80%			
Surface Temperature:		50-90°F *Do not apply unless the surface temperature is more than five degrees above dew point.			
Thinner		Do not thin			
Equipment Cleaner		MEK			
PROPERTY	VA	LUE	TEST METHOD		
Components:	Two		N/A		
Volume Solids:	85	-90%	N/A		
Total Coats:	1 or more		N/A		

SOLID (CURED) PHASE PHYSICAL DATA

Application Thickness and Coverage				
Recommended Application Thickness:	4 mils (wet)	3.5 mils (dry)	400 Ft ² / gal	
Minimum Application Thickness:	3 mils* (wet)	2.63 mils (dry)	533 Ft ² / gal	
*Material applied too thin may result in inadequate leveling and the formation of an irregular film.				
Maximum Application Thickness:	6 mils* (wet)	5.25 mils (dry)	266 Ft ² / gal	
*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		
Finish:	Glossy (80-85)	ASTM D523		
Color:	Clear (CL0A)	ASTM D1544		
Elongation:	>31%	ASTM D638		
Hardness:	Pencil 3H	ASTM D3363		
Impact Resistance: (Inch Pounds)	Direct: >88* Indirect: >88* *beyond limits of a	ASTM D5420 testing apparatus		
Abrasion Resistance (taber):	29 mg loss (CS-17, 1000 cycles)	ASTM D4060		
Bond Strength (concrete):	N/A	ASTM D4541		
Bond Strength (steel):	600 psi	ASTM D4541		
Coefficient of Friction	>0.5	ASTM D2047		
COF with SpheriTex 0110 (Application Dependant)	>0.8	ASTM D2047		
COF with WearRisist 0105- 063 (Application Dependant)	>0.6	ASTM D2047		

LIQUID PHASE PHYSICAL DATA

Cure Schedule (ASTM 5895)					
	55°F	77°F	90°F		
Tack Free	N/T	2.25 Hours	N/T		
Overcoat	N/T	4-20 Hours	N/T		
Through	N/T	7 Hours	N/T		
Work Time:		30 Minutes			
PROPERTY VOC: Viscosity (#2 spindle @ 10 rpms):		VALUE	TEST METHOD		
		150g/l	ASTM D3960		
		400-600 cps	ASTM D2196		
Flashpoint:		Part A: 86°C ASTM D327			

Part B: 170°C

Setaflash

SHIPPING DATA

STORAGE

Shelf Life (indoors @ 65-90°F):	1	year	from	date	of	manufacture
	(fa	ctory:				

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 2254 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 2254. 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 2254. 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 2254 - Rev. 230629 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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