

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.

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 Resin 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)

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	VALUE		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) 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.						

SOLID (CURED) PHASE PHYSICAL DATA

VALUE	TEST METHOD		
Glossy (80-85)	ASTM D523		
Clear (CL0A)	ASTM D1544		
>31%	ASTM D638		
Pencil 3H	ASTM D3363		
Direct: >88* Indirect: >88*	ASTM D5420		
29 mg loss (CS-17, 1000 cycles)	ASTM D4060		
N/A	ASTM D4541		
600 psi	ASTM D4541		
>0.5	ASTM D2047		
>0.8	ASTM D2047		
>0.6	ASTM D2047		
	Glossy (80-85) Clear (CL0A) >31% Pencil 3H Direct: >88* Indirect: >88* 29 mg loss (CS-17, 1000 cycles) N/A 600 psi >0.5 >0.8		

LIQUID PHASE PHYSICAL DATA

Cure Schedule (@ 50% RH) (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		VALUE	TEST METHOD		
VOC:		150g/l	ASTM D3960		
Viscosity : (@ 77°F / 50% RH)		400-600 cps (#2 spindle @ 10 rpms)	ASTM D2196		
Flashpoint:		Part A: 86°C Part B: 170°C	ASTM D3278 Setaflash		

SHIPPING DATA

Packaging:	0.625 Gal Kit, 1.25 Gal Kit, 2.5 Gal Kit
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STORAGE

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

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. 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. 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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