

ALU-SHIELDTM

EPOXY PRIMER FOR ALUMINIUM



HIGH
PERFORMANCE
COATINGS



www.glass-shield.com
1-800-361-6652

PRODUCT FEATURES

- Primer specially formulated to adhere to conditioned aluminum
- Excellent adhesion on substrates such as stainless steel and aluminum conditioned according to Glass Shield specifications
- Provides an adherent and resistant film designed to be covered with Glass Shield series 2800 or series 2850 polyurethane finish
- 30 days recoatability (Certain conditions apply; consult a Glass Shield specialist for appropriate recommendations)

SUGGESTED USE

- Designed for manufacturer, railway, marine or military purposes anywhere in Canada (Refer to Definitions and Regulations section)
- Conditioned aluminum
- Conditioned stainless steel #304
- Automotive applications as per articles 2, 9 and 10 (reference to SOR/2009-197 official document) of the "Definitions and regulations" section of this document.
- Architectural applications as per articles 1, 13 and 21 (reference to SOR/2009-264 official document) of the "Definitions and regulations" section of this document.

Question?

Contact technical service at 1-800-361-6652 to be assisted in the choice of surface preparation.

PACKAGING, HANDLING & STORAGE

Shipping weight (approximate)	1 gallon: 11.9 lbs / 5.41kg +/-5%
Storage indoors	10° - 35° C / 50° - 95° F

TECHNICAL DATA

Coating Type	Two component polyamide epoxy
Colour	grey
Gloss (ASTM D523)	20° +/- 5°
Packaging	Part A: 3L Part B: 0.75L
Shelf Life	Part A: 5 years Part B: 2 years
Flashpoint (ASTM D93)	26° C (79° F)
Mixing Ratio	4 : 1 per volume
Induction Time	ALU SHIELD part B : None
Hardener and Pot Life	8 hours
Volatile organic compound (VOC)	3.2 lbs / gal (379 g/l)
Solids (ASTM D1644)	By weight: 75% +/- 5% By volume: 65% +/- 5%
Recommended film thickness	75-100 Microns dry (3.0 - 4.0 mils dry)
Theoretical coverage	26 m ² / L at 25 microns dry 1044 Pi ² / Gal US at 1 mil +/- 5%
Application method	Brush, roller, conventional airspray, airless, HVLP and electrostatic
Temperature resistance	100°C (212°F) in service
Thinner	GS UC-557S - low VOC slow
Accelerator	N/A

CHEMICAL RESISTANCE (spot tests)

Specific Test	ASTM	Results
Solvent	D1308	Very good
Concentrated HCL	D1308	Very good
Alkali	D1308	Very good
Oil / grease	D1308	Very good
Detergent	D1308	Excellent

PERFORMANCE INFORMATION

Specific Test	ASTM	Results
Hardness, Pencil Gouge end point (air dry: 25° C, 40% RH)	D3363	4H
Hardness könig pendulum (air dry: 40° C)	D4366	150 seconds
Mar resistance	D5178	2500 - 2000 grams
Flexibility (Mandrel)	D522	Pass 1/8 inch
Abrasion resistance	D2486	Very Good
Impact resistance: direct	D2297 / 2294 / G-14	76 lbs pi
Sag (ready to spray)	D4400	Max. 12 mils @ 35 dry. Zahn #2
Intercoat adhesion	D2197 / 3359	5B
Elcometer (pull test)	D4541	>1000 lbs with polyurethane 2800 series

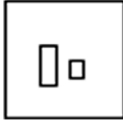


SURFACE PREPARATION

Prior to the application of ALU-SHIELD, make sure that the substrate is free of dirt, dust, salt deposit, oil, grease, rust, paint and other foreign contaminants. The minimum suggested surface preparation is SSPC-SP-2 or SSPC-SP-3 prescribed by the Steel Structure Painting Council. The recommended standard is SSPC-SP-6 (commercial blast). With a profil of 1.5 to 3 mils.

MIXING AND THINNING

Mix part A well, add catalyst Part B and mix slowly until homogeneous. No induction time is needed. Thinning is not usually required, although, if needed, the product may be diluted with Glass-Shield UC-557S thinner. Always consult the local VOC regulations in order to select the appropriate thinner. Depending on local VOC and air quality regulations, thinner may be added. Pot life of the mixed material is 8 hours at 77°F (25°C), higher temperatures will reduce the pot life of the product and lower temperatures will have the reverse effect.

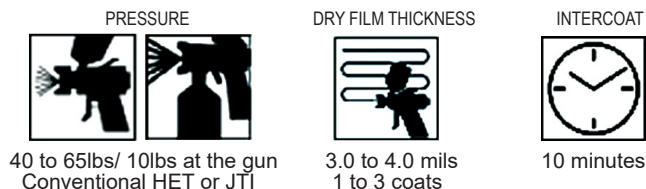


CATALYST	THINNER	POT LIFE
		
4 : 1	5 to 10%	3 to 6 hrs

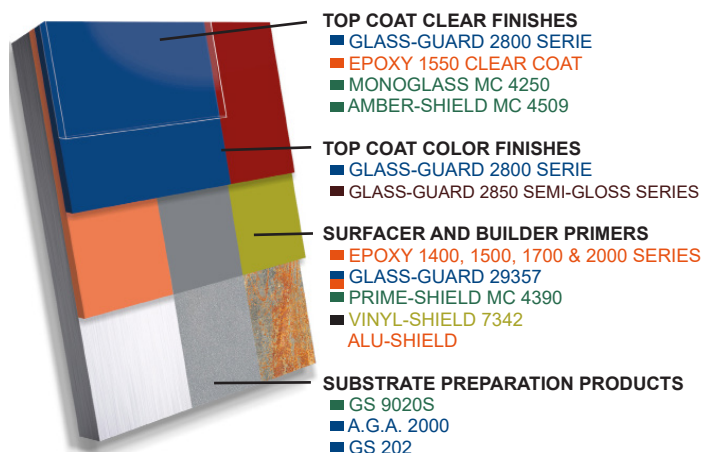
APPLICATION

ALU-SHIELD Series can be applied by brush, roller, aerospray, airless and electrostatic. For all air spray and airless application, please refer to the equipment manufacturer for guidance in achieving proper viscosity. Adheres directly to conditioned aluminum and stainless steel #304.

For HVLP application, please refer to your spray equipment manufacturer for manufacturer guidance on selecting the right size tip.



MULTIPLE APPLICATIONS TABLE



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NOT RECOMMENDED FOR

- Application over bare aluminum
- Application over bare stainless steel #304

DISCLAIMER: All information is given in good faith. Since conditions of use are beyond the manufacturer's controls, all information contained herein is without warranty, implied or otherwise. All technical data and specifications are subject to change. Please consult with your Glass Shield representative for more detailed coating recommendations.

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AIRLESS & AIR SPRAY

Manufacturer	Graco	Manufacturer	Devilbiss	SATA
Pump	30 : 1	Spray gun	HET	K3 RP
Fluid hose	3/8" x 100' maximum	Fluid tip	1.1 ff	1.1
Tip size	311, 413, 515, 517 or equivalent	Air cap	#410 / 414	
PSI	3500 PSI minimum	Fluid line	3/8"	3/8"
		Pressure pot	15 - 25 psi	40 psi
		Atomizing air	40 - 65 psi	36 psi

* Refer to Kremlin chart for specific uses or consult Glass Shield technical services

CURING SCHEDULE

Dry times are based on a 3.0-4.0 mils (75-100 microns). Let the film flash off two hours after application. Higher film thickness, insufficient ventilation or cooler temperature will require longer dry time and could result in solvent entrapment and premature failure of the film. Excessive humidity levels or condensation on the substrate during the dry time will prevent good adhesion. In that case the paint job will have to be redone. Maximum recoat time is 30 days without special surface preparation. Contact technical services for recommendations and test results. If the maximum recoat time has been exceeded, the surface must be sanded or prepared with a brush off blast SSPC-SP-7 prior to the application of additional coats. ALU-SHIELD Series applied below 4°C (40°F) may soften for several hours. This is a normal condition and will not influence performance. Contact technical services for recommendations and test results.

Catalyst	
Between coats	10 min.
Dry to touch	1 hour
To recoat	3 hours
Hard	12 hours
Full cure	7 days

DEFINITIONS AND REGULATIONS

IMPORTANT NOTICE : Canadian VOC regulations do not apply in the same way for automotive applications as for architectural applications.



The permissible VOC contents in grams per liter (g/l) vary considerably according to the types of applications as well as the various forms of activities. For example, the application of coatings is governed by the two regulations listed below, everywhere in Canada, except in manufacturing, marine, railway or military. To easily identify the recommended and VOC compliant Glass Shield products, please visit www.Glass-Shield.com/COV. In this section

you will find two tables showing the maximum VOC content permitted under the Automotive Application Regulations (SOR/2009-197) and the Architectural Applications Regulations (SOR/2009-264). We have designed these interactive and informative tools to help you easily identify the Glass Shield products that are specifically recommended for each book and are fully compliant with applicable standards.

For any additional information about a particular application, contact the technical department at 1-800-361-6652 or contact@glass-shield.com from Monday to Friday between 8:00 and 4:30PM.