




## APPLICATION

PRIME-SHIELD MC 4390 can be applied by brush, roller, airspray, airless and electrostatic. For all air spray and airless application, please refer to the equipment manufacturer for guidance in achieving proper viscosity.

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

 <b>PRESSURE</b> 40 to 65lbs/ 10lbs at the gun Conventional HET or JTI	 <b>DRY FILM THICKNESS</b> 2.0 to 4.0 mils 1 to 2 coats	 <b>INTERCOAT</b> approx. 20 minutes
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## MULTIPLE APPLICATIONS TABLE



- TOP COAT CLEAR FINISHES**
  - GLASS-GUARD 2820 SERIE
  - MONOGLASS MC 4250
- TOP COAT COLOR FINISHES**
  - GLASS-GUARD 2800 SERIE
  - GLASS-GUARD 2850 SEMI-GLOSS SERIES
- SURFACER AND BUILDER PRIMERS**
  - EPOXY 1400, 1500 AND 1700 SERIES
  - PRIME-SHIELD MC 4390
  - VINYL-SHIELD 7342
- SUBSTRATE PREPARATION PRODUCTS**
  - GS 9020S
  - A.G.A. 2000
  - GS 202

Looking for the perfect solution to your painting project? Call us at 1-800-361-6652

## NOT RECOMMENDED FOR

- Non metallic surfaces

In doubt? Contact technical services at 1-800-361-6652 for proper guidance in preparing substrate

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.

Revised in September 2021

## 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	1.4-1.6 ff	1.4-1.6
Tip Size	515 ou 517	Air Cap	#410 / 414	
PSI	2400 PSI minimum	Fluid Line	3/8"	3/8"
		Pressure Pot	15 - 25 psi	40 psi
		Atomizing Air	40 - 65 psi	36 psi

## CURING SCHEDULE

Curing times are based on a dry film thickness of 2.0-4.0 mils (50-100 microns). Let the film flash off 2 hours after the final coat. Excessive film thickness, insufficient airflow or a very cold environment will generate longer curing times and can affect the performances of the product. Excessive humidity levels or condensation on the substrate during the curing time might interfere with the process leading to a discoloration and poor film quality. In that case the paint job will have to be redone. Maximum recoat time is 72 hours without any additional 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 PRIME-SHIELD MC 4390 applied below 4°C (40°F) may soften for several hours. This is a normal condition and will not influence performance.

Intercoat	20 minutes (varies depending on humidity level)
Dry to Touch	1 hour
To Recoat	3 hours (sanding required after 12 hrs)
Hard	6 hours
Fully Cured	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](http://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](mailto:contact@glass-shield.com) from Monday to Friday between 8:00 and 4:30PM.**

# PRIME-SHIELD™ MC 4390

**POLYURETHANE  
MOISTURE CURED ANTI-CORROSION  
POLYURETHANE PRIMER**



**glass shield**  
HIGH PERFORMANCE COATINGS

\*Conditions may apply: refer to the "Definitions and regulations" or visit our website at : [www.Glass-Shield.com/VOC](http://www.Glass-Shield.com/VOC)

## PRODUCT FEATURES

- Low V.O.C.
- Primer loaded with zinc, aluminum and micaceous iron oxide (M.I.O.) for maximum corrosion control
- Can be applied and cured at temperatures below freezing (-4°C)
- Exceptional penetrating and sealing properties
- Excellent adhesion to tightly adhering rust
- Excellent intercoat adhesion with subsequent coatings

## SUGGESTED USE

- Pulp & Paper mills
- Refineries
- Pipelines
- Chemical reservoirs and storage tanks
- Trucks and fleets
- Bridges, viaducs or any other steel structures exposed to corrosive elements
- Automotive applications as per articles 1, 9 and 13 (reference to SOR/2009-197 official document) of the "Definitions and regulations" section of this document.
- Architectural applications as per articles 1 and 3 (reference to SOR/2009-264 official document) of the "Definitions and regulations" section of this document.

## CHEMICAL RESISTANCE (spot tests)

Specific Test	ASTM	Results
Solvent	D1308	Very good
Acids	D1308	Very good
Alkali	D1308	Very good
Oil / Grease	D1308	Very good
Detergent	D1308	Excellent

## TECHNICAL DATA

Coating Type	Single component aromatic polyurethane resins
Colour	Aluminum grey
Gloss (ASTM D523)	5° +/- 2°
Packaging	3.78
Shelf Life	1 year
Flashpoint (ASTM D93)	24° C (79° F)
Mixing Ratio	None
Induction Time	None
Pot Life	4-6 hours
Volatile Organic Compound (VOC)	2.0 lbs / US gal (240 g/l)
Solids (ASTM D1644)	By weight: 75% +/- 2% By volume: 55% +/- 2%
Elemental Metallic Pigments Contents	474 g/l
Recommended Film Thickness	50-75 Microns dry (2.0 - 4.0 mils dry) For severe conditions: 100-200 Microns dry (4.0-8.0 dry mils)
Theoretical Coverage	22 m <sup>2</sup> / L at 25 microns dry 883 Pi <sup>2</sup> / Gal US at 1 mil +/- 2%
Application Method	Brush, roller, conventional airspray, airless, HVLP and electrostatic
Temperature Resistance	100°C (212°F) in service
Thinner	GS UC-555S - low VOC fast GS UC-557S - low VOC slow
Accelerator	SC888 292-1AC

## PACKAGING, HANDLING & STORAGE

Shipping Weight (approximate)	1 gallon: 12.8 lbs / 5.8kg
Storage Indoors	10° - 35° C / 50° - 95° F

\*All results based on Glass-Guard white polyurethane (2800002)  
\*\*All results based on 4 mils of MC-4390 and 3 mils of Glass-Guard white polyurethane 2800 series.

## PERFORMANCE INFORMATION

Specific Test	ASTM	Results
Impact Resistance: direct	D2794	76 lbs in
Elcometer (pull test)	D4541	>800 lbs with polyurethane 2800 series

## SALT SPRAY




Specific Test*	ASTM	Results
System MC-4390 + polyurethane 2800**	B117	5000 hours

## SURFACE PREPARATION

Prior to the application of PRIME-SHIELD MC 4390, make sure that the substrate is clean, dry, free of dirt, dust, salt deposit, oil, grease and other contaminants in order to ensure optimum adhesion. The minimum commercial recommended surface preparation SSPC-SP-2 or SSPC-SP-3 prescribed by the Steel Structure Painting Council. The suggested standard is SSPC-SP-6.

## MIXING AND THINNING

PRIME-SHIELD MC 4390 is a single component primer; it does not require the addition of any catalyst. It is important to mix the primer well, either manually or mechanically, to ensure a good dispersion of the pigmentation; otherwise the performance of the product could be affected. Dilution with a thinner is not necessary (especially with airless equipment). Also, depending on local VOC, air quality regulations and spray equipment, up to 10% of UC-555S or UC-557S thinner may be added. The addition of thinner can only be done after the product has been mixed well. Pot life of the product is 6 hours at 25°C (77°F). Higher temperatures will shorten the pot life and colder temperatures will have the reversed effect.

THINNER	VISCOSITY	POT LIFE
 up to 10%	 40 to 60 sec	 4 to 6 hrs

