

**GlobalStar**

L4.1.K1

High Gloss Low VOC

Acrylic Polyurethane

US/08232016L4.1.K1

## Technical Data Sheet

### Description

L4.1.K1 is a high gloss medium solids Low VOC urethane topcoat created for painting of all types of substrates on manufactured items, and refinish projects.

L4.1.K1 is compliant in all restricted VOC areas.

### Suggested Uses

As a high performance topcoat over properly prepared primed or sealed substrates and sanded stable coatings, including: Hot and Cold roll steel, Galvanized Steel, Aluminum, fiberglass, plastics and wood where:

- Outstanding Gloss and color retention are desired.
- Outstanding adhesion and flexibility is required.
- Excellent durability and chemical resistance.
- Car finish appearance.
- Excellent DOI and leveling is required.
- Excellent performance when using air-assist airless, pressure pot, cup gun and Roller or brush application.

### Field Applications

- Light to medium industrial equipment
- Recreational boat refinishes
- Construction equipment
- Airport ground support equipment
- Truck and Trailer Refinishing
- Bus and Transit refinish
- Commercial auto and van refinish.

### Components

L4.1. K1

Base

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GSOR-F, GSOR-M, GSOR-S  
AV.002

Fast, Medium, Slow, Low VOC Urethane Reducers  
Hardener

### Mixing Ratio

Mix:

Mix four (4) parts base color to one (1) part AV.002 hardener.  
Reduce 10% - 20% with Selected Reducer.

### Pot Life

1.5 hours @ 20° C (68° F)

### Application

Apply:

Two medium wet coats, allow 10-20 minutes flash between coats.

Spray Gun:

HVLP Gravity Feed – 1.4 – 1.6mm tip and needle  
Pressure Pot HVLP – 1.0 – 1.1mm tip and needle  
Air Assist Airless - 1.0 – 1.1mm tip and needle  
Conventional – 1.4 – 1.7mm tip and needle  
Airless Not recommended.

Film Build:

50 - 62.5 microns – (2.0 – 2.5 mils.) when applied as directed.

### Dry Times

Dust Free:

30 minutes @ 20° C (68° F)

Dry to Touch

1 hours @ 20° C (68° F)

Total Hardness

24 hours @ 20° C (68° F)

Force Dry

40 minutes @ 60° C (140° F)

Chemical Resistance

Maximum resistance after 7 days

### Surface Preparation

Ferrous metals:

Best Case

SA2 sandblast Blow all dust and contaminants off and apply

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Second Best Case

GlobalStar primer within 12 hours followed by topcoat as directed.

Hot Phosphate wash system, blow dry and apply GlobalStar primer within 8 hours followed by topcoat as directed.

Third Best Case

Careful mechanical abrasion. Clean all dust, oil residue, finger prints and contaminants before and after mechanical abrasion with a clean drying wax and grease removal solvent, making sure all residue is removed. Apply suitable GlobalStar primer, followed by topcoat as directed.

**Aluminum:**

Clean surface with clean drying wax and grease remover. Apply GlobalStar Epoxy Primer, followed by topcoat as directed.

**Galvanized Steel:**

Clean all dust, oil residue, and contaminants from surface using a Clean drying wax and grease remover. Light Sanding (320P grit) Clean again with clean drying wax and grease remover ensuring that all residue is removed. Apply GlobalStar Epoxy Primer followed by topcoat as directed.

### VOC

Regulatory VOC

255.9 g/l (1.88 lbs./gl.)

Actual VOC

314.4 g/l (2.62 lbs./gl.)

### Solids

By Volume

48.41%

By Weight

49.87%

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#### Specific Gravity

1.08 kg/l (9.04 lbs./gl.)

#### Coverage

388.49 square feet per gallon @ 100% transfer efficiency,  
@ 50 microns (2 mils.).  
36.06 square meters per gallon @ 100% transfer efficiency,  
@ 50 microns (2 mils.).

#### Repainting

After 24 hours @20° C (68° F). Light sand recommended for best adhesion. After force dry recommendations are completed, allow cool down for 1 hours before sand and recoat.

#### Storage Stability

One year for A (base) component, 6 months B (Hardener)  
Component in closed package, in cool dry place, away from any heat source.

#### Heat Resistance

Once cured 180° C (356° F)

#### ASTM Information:

Test	Results	Test Methods
Abrasion Resistance	Excellent	ASTM D 4060
Adhesion	Excellent	ASTM D 4541 (1850 psi) ASTM D 3359 A/B (5/5)
Salt Spray Resistance	Excellent	ASTM B 117 (Pass 1500 hours)

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<u>Direct Impact Resistance</u>	Very Good	<u>ASTM D 2794 (140 in-lbs.)</u>
<u>Reverse Impact Resistance</u>	Very Good	<u>ASTM D 2794 (50 in lbs.)</u>
<u>Humidity Resistance</u>	Excellent	<u>ASTM D 2247 (Pass 1000 hours)</u>
<u>Film Hardness</u>	3H	<u>ASTM D 3363</u>
<u>Chemical Resistance</u> (Rating Scale 1-10 with 10 best)	Very Good to Excellent	<u>ASTM D 1308</u>
	10	1% Sodium Hydrochloric Acid
	10	5% Sodium Hydrochloric Acid
	9	10% Sodium Hydrochloric Acid
	10	Ammonia
	10	Diesel Fuel
	10	1% Hydrochloric Acid
	10	1% Sulfuric Acid
	9	10% Sulfuric Acid
	10	100% Ethanol
	10	1% Phosphoric Acid
	9	10% Phosphoric Acid
	10	MEK (Methyl Ethyl Ketone)
	10	Gasoline
	9	Skydrol
	9	DOT 3 Break Fluid
<u>QUV A</u>	Excellent	<u>ASTM D 4587 (1500 hours-97%)</u>
<u>Initial Gloss @ 60°</u>	93 min.	<u>ASTM D 523</u>
<u>Solvent Resistance</u>	Surpassed	<u>ASTM D 4752 (1000 MHR)</u>
<u>Flexibility</u>	Excellent	<u>ASTM D 522 Mandrel</u>

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