GlobalStar
6B.1.K1
High Gloss DTM
Industrial Acrylic Polyurethane

US/082320166B.1.K1

Technical Data Sheet

Description

6B.1.K1 is a two pack medium solids acrylic polyurethane DTM topcoat created for painting all types of ferrous metals. **Care must be taken in surface preparation when DTM applications are used.** An appropriate primer is always the best way to insure a longer life and finer finish.

Suggested Uses

As a high performance topcoat over suitable primers or over properly prepared substrates, 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 DOI and leveling is required.
- Excellent performance when using air-assist airless, pressure pot, cup gun.
- Can be applied in small areas by roller or brush application.

Field Applications

- Heavy industrial equipment
- Oil Field equipment
- Construction equipment
- Airport ground support equipment
- Truck and Trailer Refinishing

Components

6B.1. K1	Base
GSR-F, GSR-M, GSR-S	Fast, Medium, Slow, Urethane Reducer
AE.002	Hardener

Mixing Ratio

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Mix:	Mix three (3) parts base color to one (1) part AE.002 hardener. Reduce up to 20% with Selected Reducer.

Pot Life

4 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:	60-90 microns – (2.4 – 3.6 mils.) when applied as directed.

Dry Times

Dust Free:	15-30 minutes @ 20° C (68° F)
Dry to Touch	2-4 hours @ 20° C (68° F)
Total Hardness	24 hours @ 20° C (68° F)
Force Dry	30 minutes @ 60° C (140° F)
Chemical Resistance	Maximum resistance after 7 days

Surface Preparation

Ferrous metals:

Best Case	SA2 sandblast Blow all dust and contaminates off and apply GlobalStar primer followed by topcoat.
Second Best Case	Hot Phosphate wash system, blow dry and apply suitable GlobalStar primer followed by topcoat as directed.
Third Best Case	Careful mechanical abrasion. Clean all dust, oil residue, finger prints and contaminates before and after

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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 recommended.

Galvanized Steel: Clean all dust, oil residue, and contaminates 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 National Rule	500.0 g/l (4.17 lbs./gl.)
Actual VOC National Rule	500.0 g/l (4.17 lbs./gl.)

Solids

By Volume	40%
By Weight	60%

Specific Gravity

1.23 kg/l (9.5 lbs./gl.)

Coverage

353.1 square feet per gallon @ 100% transfer efficiency.
50 microns (2 mils.)
32.78 square meters per gallon@ 100% transfer efficiency.
50 microns (2 mils.)

Salt Spray Test

(ASTM B 117) 200 hours with dry film of 80 microns (3.1 mils.)
Sprayed directly on bare cold roll steel.

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Impact Test
(ASTM D 2794) 36 kg direct, 10 kg reverse, on sanded steel. (Passed).

Yellowing
(ASTM D 4587) After 1000 hours ΔE≤3 (with 2% of 03.007 anti UV additive inside).

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)

Chemical Resistance:

Test	Results	Cure Time
HCl Solution 10%	4	7 days
HNO_3 Solution 10%	2	7 days
H_2SO_4 Solution 10%	4	7 days
Acetic acid solution 10%	5-4	7 days
Mix of NaCl 10%, Lactic acid 5%	5-4	7 days
Synthetic sweat	5	7 days
H_2O_2 35%	1	7 days
NH_3 Solution 30%	5	7 days

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NaOH Solution 10%	5	7 days
Acetone	4-3	7 days
Cycloexanone	1	7 days
HiSol 100	4-3	7 days
Ethyl Acetate	4-3	7 days
Ethanol	4-3	7 days
Synthetic oil	4	7 days
Idraulic oil	5	7 days
Transmission oil SEA 30	5	7 days
Engine oil 15W40	5	7 days
Viakal	5	7 days
Unleaded gasoline	5	7 days