SOCOGLAZE-85285

High Solid Polyurethane Topcoat

Product

SOCOGLAZE 85285

Item Class

High Solid Polyurethane Topcoat

SOCOGLAZE 85285 Series is a high solid polyurethane topcoat formulated to provide superior resistance and excellent coverage for military and defense applications. With an average 50% solid per gallon; it also offers better coverage than most other polyurethane coatings on the market. This product is formulated to surpass conventional polyurethanes with superior chemical resistance and flexibility.

Specifications

This product is qualified to the following specifications:

Gloss Colors: MIL-PRF-85285F Ty I & II, Cl H, Form M, Gr N
Gloss Colors: MIL-PRF-85285F Ty IV, Cl H, Form M, Gr P
Semi-Gloss and Flat Colors: MIL-PRF-85285F Ty I, II, IV, Cl H, Form M, Gr N

Catalyst & Additives

Catalysts/Activators	Additives (Optional)
361 - Gloss White	PS40 Accelerator
362 - Semi-Gloss & Flat Colors	HF12 High Humidity Additive
363 - Gloss Non-White Gloss Colors	CS28 Slow Thinner Reducer
	CM100 Medium Thinner Reducer
	CF3 Fast Thinner Reducer

Use of Primers

3Chem recommends using SOCOGLAZE 23377-1-YC2 (High Solid Epoxy Primer) with this system. Please contact your local 3Chem representative for a complete list of epoxy primers which may be utilized with this system.

Surface Preparation

Prepare substrate per OEM requirements. Contact your local 3Chem representative for assistance.

Mixing Instructions

Base	Catalyst/Activator	Mix Ratio
SG-85285 Gloss White Colors	361	3:1
SG-85285 Semi-Gloss & Flat Colors	362	3:1
SG-85285 Gloss Non-White Colors	363	3:1

Shake (Base) for 15 minutes to assure no solid settlement remains in can. Add component B catalyst to component A paint first. Mix ratio for material is 3-parts component A paint, 1-part component B catalyst. Kit yields 1 gallon (3.789 liters). Product viscosity is contingent on environmental conditions.

Induction Time

Although no induction time is needed. Once mixed together, ensure that admixed material is continuously stirred for at least 5 minutes before proceeding.

Spraying Viscosity

17-24 Seconds with #2 Zahn cup

Pot Life

7 Hours @ 70° F (21° C) Higher temperatures will shorten pot life.

Film Thickness

Dry film thickness DFT: 2-3 Mils (51-76 micros) per coat
Wet film thickness WFT: 3-6 Mils (76-152 microns) per coat

Application Instructions

Temperature and Humidity	Minimum	Maximum
Temperature Celsius	11°	35°
Temperature Fahrenheit	52°	95°
Humidity	33%	74%

**For Humidity above 74%, use HF12 Additive. Max recommended relative humidity at application is 90%. HF12 high humidity additive should be added to admix material (paint, activator, thinner) at a rate of 2% max by volume.

Spray Equipment

Spray Gun Type	Tip/Nozzle Size	Air Pressure	Pot Pressure
Conventional Air	1.3 - 1.6 mm	40 to 60 psi	10 to 20 psi
HVLP	1.4 - 1.6mm	10 psi at cap	10 to 20 psi
Air Electrostatic	1.2 - 1.5mm	45 to 60 psi	10 to 40 psi
Air Assist Airless Electrostatic	.23 - .34 mm	40 to 60 psi	700 to 1200 psi

Temperature	Wet-Edge	Time Between Coats	Dry to Tape	Dry to Handle	Full Cure
52-65°F (11-18°C)	40 Min	1-1.5 Hours	7-8 Hours	10 Hours	7 Days
66-93°F (19-34°C)	35 Min	45-60 Min	6-7 Hours	8-9 Hours	7 Days
94-100°F (35-38°C)	30 Min	30-40 Min	5-7 Hours	7-8 Hours	7 Days

Only mix enough material to be applied on initial coat. Always add component B catalyst to component A paint Complete kit of material will yield 1 US Gallons (3.789 liters). 3/4-gallon (2.84 liters) component A paint, 1-quart (.946 liter) component B catalyst.

Always check product viscosity using #2 Zahn cup to confirm viscosity. If needed, admixed material may be thinned up to 10% by volume with a 3Chem recommended thinner based on environmental conditions.

Shake (Base) for 15 minutes to assure no solid settlement remains in can. Add component B catalyst to component A paint first. Then add recommended thinner from chart below. Use of optional thinner depends on environmental conditions. Mix ratio for material is 3-parts component A paint, 1-part component B catalyst and 10% (max) parts thinner (Optional). Additives such as PS40 dry time accelerator may also be used but are not required. See chart below for use of this additive.

Gloss Colors:
Apply one tack coat of material using a uniform spray pattern. Wait recommend time between coats based on chart above. The initial coat should be tacky before applying a second coat. Applying the second coat too early will lead to possible running of material. Waiting too long will lead to a dull finish. Mix enough material to be applied on the second coat. Use the same mixing instruction from the initial coat above.

Apply a second medium wet coat using a uniform spray pattern. The second coat must appear wet and uniform once complete. Take care not to leave any dry areas or spots. Wet these areas if necessary, to ensure a uniform finish. Wait appropriate dry to tape or dry to handle time based on chart above.

Application Instructions (continued)

Semi-Gloss and Flat Colors:
Apply one even wet coat of material using a uniform spray pattern. Cross-coats may be used to achieve 100% coverage in one single coat depending on color. Note: Apply only one coat of material to achieve proper gloss requirement for the product.

PS40 Accelerator (Fast dry additive mix options)

PS40 Accelerator	Dry Between Coats	Dry to Handle	Dry Hard	Pot Life	Full Cure
0.25% By Volume	12 Minutes	2 Hours	4 Hours	4 Hours	6 Days
0.30% By Volume	10 Minutes	1.5 Hours	3 Hours	3 Hours	6 Days
0.40% By Volume	5 Minutes	45 Minutes	1 Hour	45 Minutes	6 Days

*Note: Overuse of PS40 additive may affect product gloss and finish

Force Cure: If deemed necessary oven curing is possible to reduce dry to tape and handle times. After application, allow coating to air dry for 30 minutes at 77° F (25° C), then force cure for 1 hour at 120° F (49° C).

Theoretical Coverage 800-900 sq. ft / gallon @ 1 mil 19.6–22.1 m^2/L @ 25 microns
*Coverage based on 100% transfer efficiency rate

Dry Film Weight Per 25 microns: 27-35 g/m2
Per mil: .0057-.0082 lbs./ft2

Color Available in all color ranges including AMS-STD-595, BAC, RAL, etc.

Gloss Gloss colors: >90 GU @ 60 degrees
Semi-Gloss Colors: 17-24 GU @ 60 degrees
Flat Colors: <5 @ 60 degrees

Volatile Organic Compound 220-340 g/l (Use of thinner will increase product V.O.C)

Shelf Life 24 Months (When stored in climate-controlled environment between 60-80° F / 16-27° C)

Safety Instructions Always read material safety data sheet (SDS) and product label before utilizing this product. Product SDS is available upon request.