# POLYURETHANE TOPCOAT FOR AIRCRAFT & SUPPORT EQUIPMENT

Technical Data Sheet

#### Approvals and conformities

MIL-SPECS

MIL-PRF-85285 Type 1

**SOCOGLAZE PT-785** is a two-component high solids, low VOC, catalyst cure, aliphatic polyurethane. It is a high-performance polyurethane topcoat designed for exterior use on high-performance general aviation, business jet, and commercial aircraft.

Aerospace/Aviation	Aircraft (commercial and military), helicopters, radar equipment, and cabin interiors (e.g., space shuttle) due to its self-extinguishing properties in the event of a fire.	
Industrial	Material handling equipment, pumps, pipes, valves, and fan equipment.	
Marine	Holding tanks, machinery, and ship superstructure.	
Recreation	Playground equipment, golf carts, decks.	

#### Available in liquid

Can be provided in designated AMS-STD-595A colors upon request.

We recommand that customers review SOCOGLAZE PT-799 which as superseded this specification.

## **USES**

#### Please, consult us regarding SOCOMORE solutions for:

- Surface preparation (SOCOCLEAN, DIESTONE & DS ranges),
- Functionalized coatings (SOCOGLAZE, AEROGLAZE, CHEMGLAZE, PRIAM, LBYH ranges),
- Surface treatment (SOCOCLEAN & SOCOSURF ranges),
- Adhesion promotion (SOCOGEL & PREKOTE ranges)
- Chemical stripping (SOCOSTRIP & SPC ranges)

## **DIRECTIONS FOR USE**

#### **Mixing Instructions**

Shake component A in a paint shaker for 5 – 10 minutes for optimal results.

Admix by volume:

2 Part

Component A (Base)

1 Part Component B (Catalyst)

Add the Catalyst to the Base.

Admixed material should be allowed a 15-minute induction time for best application results. Reduce: Use reducer **SOCOGLAZE PT-1003 TYI**, 10% by volume.

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## Application

This product can be applied using conventional air spray equipment, or an HVLP spray system. Please consult with a SOCOMORE representative for specific equipment recommendations and settings.

- 1. Make sure pots, guns, and lines are purged and cleaned.
- 2. Mix both base and catalyst thoroughly and filter/strain before spray application. *NOTE: It is not recommended to strain flat/matte coatings.*
- 3. HVLP Spray Pressure: 7-10psi. Convention Equipment Spray Pressure 15-30psi
- 4. Always air-blow and tack-wipe the surfaces to be painted. Aircraft should be grounded to prevent static.
- 5. Best application results: apply 3 coats: 1 fog/tack coat & 2 full coats from 0.6 1 mil thickness.
- 6. Do not allow more than 48 hours to pass before applying the second coat.
- 7. Recommended Dry Film Thickness is 1-2 mils. Some colors may require thicker films to achieve hiding.
- 8. For wet sanding or buffing of coating, wait a minimum of 13 hours but not more than 26 hours. *NOTE: If the paint is allowed to cure for more than 48 hours wet sanding and buffing is not possible.*

*NOTE:* Application of SOCOGLAZE products requires the use of all OSHA-approved safety equipment, including proper ventilation. Additionally, SOCOGLAZE products require the recommended temperature/humidity conditions and film thickness ranges for optimal performance. The material, hangar, and aircraft skin temperatures should be no lower than 75 F / 25 C before, during, and after application.

## **Drying & Curing Schedule**

Dry times are based on the dry film thickness between 1-2 mils (25-50 microns).

**Air Dry Times** (75 F / 25 C and 50% Relative Humidity) Set to Touch: 6 hours Dry Hard: 12-15 hours Recoat Time: 1 hour or tack dry. You can recoat without sanding up to 72 hours after application. The full chemical cure requires 7 days minimum.

Force Dry Times: 15 minutes air dry, then 2 hours at 225 F after the coating has dried hard.

#### Equipment Cleanup

Use a clean **SOCOGLAZE PT-1003 TYI Reducer**. Do not allow the material to dry or cure inside any equipment.

# **TECHNICAL CHARACTERISTICS**

Coating Properties & Characteristics		
Characteristic	Value	

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Mix Ratio, by volume	2 part Base to 1 part Catalyst
Reducer	SOCOGLAZE PT-1003 TYI
Recommended Dry Film Thickness	1 mil
Hardness	Pencil Hardness – 5H
Admixed Viscosity	30 seconds, max #4 Ford
Admixed Weight per Gallon	11.4 lbs.
Admixed Solids By Weight	79%
Theoretical Coverage	600- 800 sq. ft.²/gal.
Pot Life	4 hours
Coatings VOC	340 g/L

Weather & Chemical Resistance Properties			
Characteristic	Value		
Salt Spray per ASTM B117 (corrosion)	1000+ hours		
Humidity (Filiform)	1000+ hours		
Lubricating Oil Conforms to MIL-L-23699 Hydraulic Fluid Conforms to MIL-H-5606/MIL- H-83282	24 hrs. at 250° F 24 hrs. at 150° F		
JP-5 Jet Fuel Conforms to MIL-T-5625 Skydrol 500B Conforms to MIL-C-83286B	7 Days at Room Temperature 7 Days at Room Temperature		
Methyl Ethyl Ketone soaked cloth 100+ rubs	Passes		
DS2 [1,5-Dichloropentane]	Passes		
The Chemicals listed below were tested at:	1 drop per day for five (5) days:		
Phosphoric Acid [10%]	Passes		
Isopropanol [99%]	Passes		
Acetone	Passes		
Ethanol [99%]	Passes		
Triton X-100	Passes		

## PRECAUTIONS FOR USE AND STORAGE

#### Storage

Shelf life is only applicable for materials stored in unopened and undamaged original factory-filled containers. Can be stored for 12 months when stored between 50 -95 F.(10 -35 C). KEEP AWAY FROM FROST. For more information regarding the danger of the product, please consult the product safety data sheet according to local regulations. For professional use only.

#### This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Pictures are not contractual. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.



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