

9700-Line DURATHANE II

FLAT HIGH SOLIDS POLYURETHANE

9700 Line is a premium quality aliphatic polyurethane formulated with exceptional durability and physical properties. Developed primarily for the aerospace defence platforms, it is also suitable for commercial aerospace applications.

SPECIFICATION

MIL-PRF-85285 TYPE I Class H

OUTSTANDING CHARACTERISTICS

- Exceptional exterior durability
- Excellent flexibility
- Superior solvent and chemical resistance
- Low V.O.C.

PHYSICAL DATA

Finish:	Flat
Colour:	Full range of Industrial and Fed. Std. colours
Weight Solids:	64.0 ± 3% mixed
Volume Solids:	45.0 ± 2% mixed
V.O.C.	<420 g/L
Density:	N/A
Dry Film Weight:	N/A

RECOMMENDED SYSTEMS

- 4500-P-215Y MIL-PRF-23377 Ty. I, CI C1

Note: all physical and chemical resistance tests conducted after one week cure time at 20-25°C (70-75°F) on properly cleaned substrate.



SURFACE PREPARATION

These products are designed to be applied over properly prepared and primed substrates. Primed surfaces should be coated within 5 - 24 hours or a light sanding (#400 grit or scotch brite) and solvent wipe with MEK using a clean cotton cloth should be done.



INSTRUCTIONS FOR USE

Components:	Two
Activator:	9700-C-4
Mix Ratio:	2:1 by volume, Base / Activator
Induction Time:	N/A
Pot Life:	4 hours @ 25°C (75°F)
Reducer:	9600-S-1 or 4600-S-72 (MIL-T-81772 Ty I)



MIXING INSTRUCTIONS

Mix 2:1 by volume Base/Activator thoroughly. Mix only sufficient material to use within the specified pot life. Always add reducer to the mixed product (base + activator), never the opposite.



SPRAYING VISCOSITY

Recommended spray viscosity 25 - 30 seconds #4 Ford Cup

Reduce with 9600-S-1 or thinner conforming to MIL-T-81772 TY.1 when required by contract. In areas where air quality regulations restrict volatile emissions, do not exceed 420 g/L (3.5 lb/gal) with thinner (approx 5% by volume).



APPLICATION METHOD

Allow for application loss and surface irregularities.

Application: Conventional air spray or air assisted airless are recommended for best atomization.

RESISTANCE TABLE

- Excellent resistance to aviation hydraulic fluids
- Superior chemical resistance
- * See charts below

Chemical Resistance 24 hours covered spot test	
20% Sulphuric acid	no effect
Hydrochloric acid (conc.)	slight stain
15% Hydrochloric acid	no effect
10% Nitric acid	slight stain
15% Sodium Hydroxide	no effect
15% Calcium chloride	no effect
Detergent (conc.)	no effect
Dilute detergent	no effect
Motor oil 10W30	no effect
Brake Fluid	slight stain
Anti-freeze	no effect
Power steering fluid	no effect
Transmission fluid	no effect
Ketchup	no effect
Mustard	yellow stain
Vinegar	no effect
Relish	no effect
Coke	no effect
Lipstick	no effect
Solvent Resistance 24 hours covers spot test	
Xylol	no effect
Toluol	slight haze
VM&P Naphtha	no effect
Isopropanol	no effect
Butanol	no effect
MEK	slight haze
Butyl Carbitol	no effect
Gasoline	no effect

SKYDROL RESISTANCE

Skydrol 500B (30 days immersion 25°C)	no effect
HyJet IV-A plus (30 days immersion 25°C)	no effect

Chemical and solvent resistance tests
conducted after 1-week cure @ 70-75°F.



EQUIPMENT

Air Spray – DeVilbiss JGA or MBC gun with “E” needle tip, #704 cap or equivalent. Adjust pressure and fluid delivery for proper atomization.



RECOMMENDED FILM BUILD THICKNESS & COVER RATE

Total Dry Film Recommendation 1.7-2.3 mils (43-58 microns)

Calculated Coverage at:

1.0 Mils: Up to 833 sq.ft/US gallon

25 Microns: Up to 20.5 m² / Litre



ENVIRONMENTAL CONDITIONS

Temperature: 15-35°C (59-95°F)

Relative Humidity: 10-75%

Note: Substrate and air temperature must be a minimum of 3°C (5°F) above the Dew Point



DRY TIME

Dry time at 25°C (75°F), 50% relative humidity

To Touch: 1.0-1.5 hours

Tack Free: 3.0-5.0 hours

To Recoat: 1-24 hours

Hard: 24 hours



CLEAN UP

Cleaner: 20-4301, 4600-S-1 or 9600-S-1



STORAGE & SHIPPING

Flash Point: 42°C (108°F) Setaflash closed cup

Shelf Life: 12 months unmixed



SAFETY PRECAUTIONS

Please refer to the Material Safety Data Sheet (MSDS) for information regarding health, physical and environmental hazards, handling precautions and recommended first aid procedures. For industrial and automotive use only.