

4500-P-40

Non-chromated Epoxy Primer

4500-P-40 is a fluid resistant epoxy/polyamide primer. It is specifically designed for use on non-metallic and composite substrates used in the aerospace industry.

SPECIFICATION

DHMS.C4.01 Type 3, Grade A

OUTSTANDING CHARACTERISTICS

- Excellent Adhesion
- Excellent hydraulic fluid resistance (Skydrol)
- Outstanding solvent resistance

PHYSICAL DATA

Finish:	Flat primer finish
Colour:	White
Weight Solids:	41.1% +/- 2%
Volume Solids:	23.9% +/- 2%
V.O.C.	639 g/L
Density:	9.05 lbs/USG
Dry Film Weight:	0.009 lbs/ft ² /mil 1.81 g/m ² /μ

RECOMMENDED SYSTEMS

- 6600, 6700, 6800 - Lines DHMS C4.04 Ty. 4
- 4600, 4700, 4800 - Lines DHMS C4.04 Ty. 2
- 7600, 7700, 7800 - Lines BAMS 565-002

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

Per De Havilland Specifications



INSTRUCTIONS FOR USE

Components:	Two
Cure:	4500-C-40
Mix Ratio:	1:1 by volume, Base / Cure
Induction Time:	15-30 minutes
Pot Life:	8 hours @ 25°C (75°F)
Reducer:	4500-S-23/23X



MIXING INSTRUCTIONS

Mix 1:1 by volume Base/Cure. We recommend using a squirrel mixer or equivalent and mix thoroughly for 5 minutes minimum. Allow 30 minutes induction time before using. Mix only sufficient material to use within a 6-hour period. Always add Cure component to Base component - **NEVER THE REVERSE**. Never mix coating or individual component from one vendor with that of another vendor.



SPRAYING VISCOSITY

> 18" #2 Zahn Cup



APPLICATION METHOD

Allow for application loss and surface irregularities.

Application:	Conventional or HVLV
Reduction:	Reduce with 4500-S-23/23X

RESISTANCE TABLE

Impact Resistance	No flaking or cracking when subjected to 40 inch pounds Impact direct and 30 inch pounds reverse.
Hardness	Pencil Hardness 2H minimum
Fuel Resistance	Withstands immersion of Jet A1 Fuel for 42 days at ambient Temperatures without showing any defects. After a 24 hour recovery period, the primer regains its pretest hardness.
Lubricating Oil Resistance	Withstands immersion in lubricating oil at 250°F for 24 hours without showing any softening, blistering, or loss of adhesion.
Hydraulic Fluid Resistance	Withstands immersion in Skydrol hydraulic fluid at 160°F for 7 days without showing any defects. After 24 hours the primer regains its pre-test hardness.
Water Resistance	No blistering or loss of adhesion after 42 days immersion in distilled water at ambient temperature. Regains its pretest hardness after a recovery period of 24 hours.

SUBSTRATES:

- Composite



EQUIPMENT

Using a Binks Mach I HVLP with a 93P or 92AP air cap and a #92 Fluid tip, inlet pressure should be approximately 70-80 PSI (9 PSI at air cap) and 10-12 PSI on the pressure pot. Accuspray 19 or 12 series HVLP, use a #36 or #43 fluid tip and needle with a #6 air cap with approx 22 to 40 PSI inlet pressure (5-9 at the air cap) and 10-12 PSI on the pressure pot. For Accuspray 10 series HVLP cup gun use a #36 or #43 fluid tip and needle with a #6 air cap with approx 5-9 inlet pressure. Devilbiss JJ502 conventional spray gun uses a 765-air cap and a .0425 needle nozzle with 45-55 PSI gun pressure and 10-12 on pressure pot.



RECOMMENDED FILM BUILD THICKNESS & COVER RATE

Total Dry Film Recommendation 0.5 – 0.8 Mils (12.5-20 microns)
Calculated Coverage at:

1.0 Mils:	383 ft ²
25 Microns:	35.6 m ²



ENVIRONMENTAL CONDITIONS

Temperature: 15-35°C (59-95°F)
Relative Humidity: 35-75%
Note: Substrate and air temperature must be a minimum of 3°C (5°F) above the Dew Point



DRY TIME

Dry time at 24°C +/-3°C (75°F), 50% relative humidity.
To Touch: <10 minutes
Tack Free: <45 minutes
To Recoat: 1-2 hours
Dry Through: <8 hours
May be forced dried at 60-93°C(140-200°F) for 20-30 minutes



CLEAN UP

Cleaner: 20-4301, 4500-S-23/23X, S-10



STORAGE & SHIPPING

Flash Point: 2°C
Shelf Life: 24 months unmixed for unopened cans



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.