



2.8 HSP (HIGH SOLIDS POLYURETHANE) LOW VOC

DESCRIPTION: 2.8 HSP (High Solids Polyurethane) is a low VOC single-stage topcoat designed for commercial and automotive refinishing. This product provides Superior UV durability as well as commercial grade chemical resistance. 2.8 HSP may be applied with a single pass application. Saving time and material.

PRODUCT & ADDITIVES:

PRODUCT: 2.8 HSP

ACTIVATORS: —2.8 Fast Activator: A faster flashing activator/hardener designed for all refinishing. Temperatures from 60°F–90°F (16°C–32°C).
—2.8 Slow Activator: A slower flashing activator/hardener designed for all refinishing at warmer temperatures. Temperatures from 85°F (30°C) and above.

ACCELERATORS: —994 Super Accelerator: an accelerator for spot and panel repairs.
—995 Blocked Accelerator: speeds cure and increases potlife. Designed for larger areas and average temperatures. Temperatures up to 90°F (32°C).
—996 Supercharger: speeds cure and increases potlife. Designed for larger areas and cooler temperatures. Temperatures from 60°F–75°F (16°C–24°C).

ADDITIVES: —997 Enhancer: increases potlife and slows flash-off, allowing for better sprayability and overspray melt-in at high temperatures. Temperatures from 100°F (38°C) and above.
—U-Tech LV Flex Agent: Additive to increase flexibility of 2.8 HSP for use on flexible parts.
—T890 Flatting Agent: A matting agent designed to reduce the gloss level of single stage topcoats down to eggshell or matte if desired.

BASIC RAW MATERIALS:





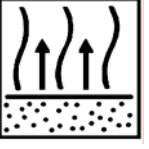

—2.8 HSP: polyurethane resins.
—2.8 Activators: polyisocyanate resins

SUITABLE SUBSTRATES:

2.8 HSP single stage can be directly applied on top of the following surfaces:
—All existing finishes degreased and sanded with #P320 to #P400 grit paper dry (DA) or #P500 to #P600 grit wet.
—All U-Tech preparatory products.

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APPLICATION:

1.  Wear a positive pressure-fresh air mask when applying U-Tech products.
2.  **3:1**
2.8 HSP single stage color
2.8 Activator Fast
3.  Use the U-Tech measuring stick and stir thoroughly.
4.  1.5 x 1 or 2-3 x 1
Spray one coat followed by a cross coat or two to three single flowing coats.
5.  **For 2-3 Coat Application**
Flash time between coats:
10 - 15 minutes at 70°F (20°C)
6.  15 hours at 70°F (20°C)
45 min. at 140°F (60°C).

SPRAY GUN & PRESSURE:

	Fluid Tip	Spraying Pressure	Fluid Pressure
Pressure Feed	1.0–1.2 mm	40–50 psi	8–10 psi
HVLP Siphon	1.8–2.2 mm	max. 10 psi	
HVLP Gravity	1.4–1.5 mm	max. 10 psi	

APPLICATION METHOD:

Most solid colors can be sprayed in one coat followed by a cross coat. 2.8 HSP can also be applied in two to three single flowing coats after the stated flash-off time.

Metallics: Apply two (2) single flowing coats. After the stated flash-off time, apply the second coat. The coats of 2.8 HSP should be applied with sufficient flow, but should not be applied too heavily or excessive mottling will occur.

If required, after a flash off time of 5-10 minutes, even out the metallic pattern with a final mist coat by holding the spray gun at a 45° angle to the panel. Adjust the material flow from the spray gun by means of trigger control. Do not make this coat too wet. Application affects the final color. A light mist coat lightens the color. A heavy or wet mist coat will make the color darker.



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SPRAYING

VISCOSITY:

2.8 Fast Activator: 22 seconds ZAHN cup #2 (20 seconds DIN #4) at 70°F (20°C).

2.8 Slow Activator: 22 seconds ZAHN cup #2 (20 seconds DIN #4) at 70°F (20°C).

POT LIFE:

2.8 Fast Activator: 1½ hours at 70°F (20°C)

with 2 oz per gal 994: 1 hour at 70°F (20°C)

with 2 oz per gal 995: 3 hours at 70°F (20°C)

with 2 oz per gal 996: 3½ hours at 70°F (20°C)

with 2 oz per gal 997: 4 hours at 70°F (20°C)

2.8 Slow Activator: 1½ hours at 70°F (20°C)

with 2 oz per gal 994: 1 hour at 70°F (20°C)

with 2 oz per gal 995: 3 hours at 70°F (20°C)

with 2 oz per gal 996: 4 hours at 70°F (20°C)

with 2 oz per gal 997: 5 hours at 70°F (20°C)

POLISHING:

Dust and minor damage can be polished out after the stated dry times listed in the table below.

Preparation: Carefully color sand, removing dust particles with P1500 grade paper wet. Final sand (in a direction perpendicular to the direction of the P1500) with P2000 grit paper wet. Make sure water is fresh and clean and no contaminants enter during this process, as this will scratch the surface. Clean and dry the surface to be polished.

Polishing: High quality 3M compounds are recommended.

Step 1: Use Perfect-It II Rubbing Compound, Part No. 05984 or Perfect-It Rubbing Compound, Part No. 05981. Either compound should be applied with a white wool pad, Part No. 05711.

Step 2: Perfect-It Foam Polishing Pad Glaze, Part No. 05995 or Perfect-It Foam Polishing Pad Glaze, Part No. 05995. Either polishing glaze should be applied with a yellow wool pad, Part No. 05713, or a Perfect-It Foam Polishing Pad, Part No. 05725.

NOTE:

When heavy color sanding and rubbing are required, all 2.8 HSP colors must be clearcoated. Apply 1 coat of appropriate U-Tech clearcoat.

DECALS:

Decals can be applied after 48 hours at 70°F (20°C)

LETTERING:

Striping or lettering on 2.8 HSP topcoat must be applied within 24 hours for good adhesion. After 24 hours, scuff with gray scuffing pad.

DRY FILM

THICKNESS:

Approximately 1.6 mils per coat. 1.8 – 2.2 mils dry are required.



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DRYING TIMES:

Below is a chart indicating various drying times:

Metal Temp.	Drying	2.8 Fast Activator	2.8 Slow Activator
70°F (20°C)	Dust Free	1 hour	3 hours
	Dry	15 hours	15 hours
140°F (60°C)	Dry	45 min.	45 min.

Below is a chart indicating various drying times with 2.8 Fast Activator and the U-Tech accelerators:

Metal Temp.	Drying	994 Super Accelerator	995 Blocked Accelerator	996 Supercharger
70°F (20°C)	Dust Free	30 minutes	2 hours	1 ½ hours
	Dry	8 hours	12 hours	10 hours
140°F (60°C)	Dry	25 minutes	35 minutes	30 minutes

Below is a chart indicating various drying times with 2.8 Slow Activator and the U-Tech accelerators:

Metal Temp.	Drying	994 Super Accelerator	995 Blocked Accelerator	996 Supercharger
70°F (20°C)	Dust Free	45 minutes	4 hours	N/A
	Dry	10 hours	15 hours	N/A
140°F (60°C)	Dry	35 minutes	40 minutes	N/A

PRODUCT SPECIFICATIONS:

(Testing at 70°F Ready to Spray)

	2.8 Fast Activator	2.8 Slow Activator
Pencil Hardness:	2H	2H
Electrostatic Sprayability: Rating 1-10 (10 being best)	.2 MΩ 4 Rating	.2 MΩ 4 Rating
Chemical Resistance	200 MEK RUBS – no failure	200 MEK RUBS – no failure



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QUV WEATHERING:

(5000 HOURS WHITE UVA 340 BULB)

60°	93% gloss (Initial)
20°	85% gloss (Initial)
60°	93% gloss (Final)
20°	85% gloss (Final)

CLEANING OF EQUIPMENT:

Use Extra Strong Cleaning Solvent, or lacquer thinner.

COVER RATE:

Approximately 724 sq. ft./gallon at a film thickness of 1.0 mils. As it is a requirement that 2.8 HSP be applied at a minimum film thickness of approximately 2.0 mils, applying 2 single coats achieve this, depending on color.

STOCK KEEPING:

AVAILABILITY:

U-Tech 2.8 HSP is available ready mixed or can be mixed by means of the U-Tech mixing machine.

COLOR:

See the U-Tech Color Documentation.

SHELF LIFE:

- 2.8 HSP Toners: Two years if stored unopened at room temperature.
- 2.8 Activators: One year if stored unopened at room temperature.

SAFETY ASPECTS:

READY TO SPRAY VOC:

2.8 HSP System Single Stage:	2.8 lb/gal	336 g/liter
2.8 HSP System Single Stage with 994:	2.9 lb/gal	347 g/liter
2.8 HSP System Single Stage with 995:	2.9 lb/gal	349 g/liter
2.8 HSP System Single Stage with 996:	2.9 lb/gal	349 g/liter
2.8 HSP System Single Stage with 997:	2.9 lb/gal	348 g/liter

NOTICE:

Do not handle until the Material Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Material Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist.