



TUFCOTE[®] 3.5 HG-P[®]

HIGH GLOSS ALKYD WITH POLYURETHANE MODIFICATION (formerly DuPont 34P[™] /FG-034[™])

Tufcote[®] 3.5 HG-P[™] is a high-gloss, two-package, VOC conforming (3.5 lbs./gal.) acrylic-modified V-T alkyd enamel with polyurethane modification. The resulting very durable coating delivers very quick dry times with improved solvent resistance, hardness, gloss and color retention over conventional alkyd enamels.

SUGGESTED USES:

As a quality high-gloss alkyd topcoat on properly primed surfaces, carbon steel, dry wall, and wood where:

- Very quick dry times are required.
- A wide variety of custom colors are needed.
- Improved performance vs. conventional alkyd coatings is desired.
- DTM (direct-to-metal) is required for interior exposure.
- Application by brush and roller, in addition to spraying, may be necessary.
- Electrostatic spray application is required.

NOT RECOMMENDED FOR:

- Immersion service
- Harsh chemical environments
- Over galvanized metal
- Prolonged exterior exposure – will chalk

COMPATIBILITY WITH OTHER COATINGS:

Tufcote[®] 3.5 HG-P[™] should be used over properly primed surfaces in exterior exposures. Recommended primers include: Tufcote[®] 2.8 PR[™], Tufcote[®] 3.3 PR[™], Tufcote[®] 3.5 PR[™], Corlar[®] 2.1 PR[™], Corlar[®] 3.2 PR[™] and Corlar[®] LV PR[™]. Tufcote[®] 3.5 HG-P[™] can be applied DTM (direct-to-metal) in mild interior exposures. It may be used over most aged and hard cured coatings in good condition. Testing for lifting, bubbling and adhesion is recommended to assure compatibility with unknown coatings. Contact your DuPont Performance Coatings Representative for specific recommendations.

MAXIMUM SERVICE TEMPERATURE:

200°F (93°C) in continuous service

PERFORMANCE PROPERTIES:

Chemical	Fair to Good in mild chemical environments
Humidity	Good
Weather	Fair

VOLATILE ORGANIC CONTENT (VOC) THEORETICAL:

Tufcote [®] 3.5 HG-P [™] activated with Tufcote [®] FG-034 [™]	3.50 lbs/gal max.
Tufcote [®] 3.5 HG-P [™] activated with Tufcote [®] FG-034 [™] , reduced 4% with DuPont T-8805 [™]	3.64 lbs/gal max.

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HIGH GLOSS ALKYD W/POLYURETHANE MODIFICATION
(formerly DuPont 34P[™]/FG-034[™])

COLOR:

Select Factory Pack Colors, custom colors available on request.

GLOSS:

High gloss	Angle	60°
Gloss Units without DuPont FG-034 [™]		90+
or with DuPont FG-034 [™]		

CURE TIME – HOURS @ 50% R.H. & RECOMMENDED DFT

	<u>70°F (21°C)</u>
To Touch	20 minutes
To Handle	1 hour
To Recoat	after 30 minutes up to 2 hours, then after 24 hours
Hard Dry	4 hours

THEORETICAL COVERAGE PER GALLON:

819 ft.² (20.1 m²/L) @ 1 mil DFT

410 ft.² (10 m²/L) @ 2 mils DFT

*Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

SUGGESTED FILM BUILD:

4 mils (100 µm) wet

2 mils (50 µm) dry

VOLUME SOLIDS (MIXED):

51.1% avg.

WEIGHT SOLIDS (MIXED):

61.7% avg.

WEIGHT PER GALLON (MIXED):

9.14 Lb. Avg.

FLASH POINT (TAG CLOSED CUP):

58°F

PACKAGING:

- Select Factory Packaged colors available in 1 gallon and 5 gallon containers.
- Custom colors available in 1 gallon & 5 gallon containers
- Tufcote[®] FG-034[™] Activator available in pints only.

SHIPPING WEIGHT (LBS.) APPROXIMATE:

1 gallon container: 11 (Tufcote[®] 3.5 HG-P[™]) 1 pint container: 1.5 (DuPont FG-034[™])

SHELF LIFE & STORAGE CONDITIONS:

Store in a dry, well-ventilated area. Storage conditions should be between –30°F (-34°C) and 120°F (-48°C).

- Shelf Life: 1 year minimum.
- Tufcote[®] 3.5 HG-P[™] may settle. Agitate before each use.

SAFETY:

Consult the Material Safety Data Sheet for this product prior to use.



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APPLICATION INSTRUCTIONS

SURFACE PREPARATION:

Surface should be clean, dry and free of any oil or dirt. Prime bare steel with Tufcote[®] 2.8 PR[™], Tufcote 3.3 PR[™], Tufcote[®] 3.5 PR[™]. Tufcote[®] 3.5 HG-P[™] may be applied direct to metal in non-corrosive interior environments.

ACTIVATION:

Power mix pigmented portion until uniform in color. Mix 8 parts Tufcote[®] 3.5 HG-P[™] base with one part Tufcote[®] FG-034[™] Activator.

POT LIFE:

8 hrs @ 77°F and 50% R.H.

REDUCTION:

No further reduction necessary. Any addition of thinner will eliminate compliance with air pollution regulations limiting VOC's to 3.5 lb/gal. If 3.5 VOC is not required, thin using up to 4% DuPont T-8805[™] for spray or brush and DuPont Y-32035[™] up to 10% for electrostatic spray.

APPLICATION THINNERS:

Spray, Brush DuPont T-8805[™]
Electrostatic Spray DuPont Y-32035[™]

CLEAN UP THINNERS:

Same as application thinners

APPLICATION CONDITIONS:

Do not apply if material, substrate or ambient temperature is below 40°F (4°C) or above 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%.

APPLICATION EQUIPMENT:

- Apply by brush, roll, or spray.
- Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

BRUSH & ROLL:

- ¼"- ½" nap Wooster Pro/Doo-Z roller cover. Keep roll wet. Roll in one direction, rewet, then cross roll.
- 2"-4" Wooster China Bristle Brush

CONVENTIONAL SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>	<u>Sata</u>
Spray Gun:	2001	JGA	K3RP
Fluid Nozzle:	63BSS	FF (1.4)	1.1
Pot Pressure:			10
Atomizing Pressure			36
Air Cap:	63PB	765	

HVLP SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>
Spray Gun:	Mach 1	GTi
Fluid Nozzle:	94 (1.4)	1.4
Air Cap:	94P	2000

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AIRLESS SPRAY:

Pump:	Graco Extreme 33:1
Airless Gun:	Graco 208663
Fluid Hose:	3/8" x 100' max.
Tips:	411-517
Minimum pressure to avoid fingering:	2400 psi min.

ADDITIONAL COMMENTS:

1. Bases are short filled to allow for colorant addition:
DuPont 1LB34P[™] 124 oz/gal
DuPont 2MB34P[™] 120 oz/gal
DuPont 3DB34P[™] 116 oz/gal
DuPont 4NB34P[™] 112 oz/gal
2. As Tufcote[®] 3.5 HG-P[™] alkyd enamel is lead and chromate free, some bright custom colors (reds, yellows and oranges) will require multiple coats to obtain complete hiding.
3. Factory packaged colors intended to hide in 2-3 mils dry film thickness.
4. Spray application is the preferred method for this product because of its quick dry properties.



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ASTM INFORMATION

Physical properties are averages. The results listed below are obtained when applying Tufcote[®] 3.5 HG-P[™] over Tufcote[®] 3.3 PR[™] to 5 mils DFT. For specific system results, contact DuPont Technical Service at 1-800-3DUPONT.

◆ Salt Fog (ASTM B117)	1000 hours	no rusting, no blisters
	2000 hours	no rusting, very few #4 blisters at the scribe
	3000 hours	no rusting, medium #2 blisters at the scribe
◆ Adhesion (ASTM D4521 A2):	1344 psi	
◆ MEK Resistance:	with DuPont FG-034 [™]	16 D Rubs
	without DuPont FG-034 [™]	6 D Rubs
◆ QUV-A Bulb (500 hours)	with DuPont FG-034 [™]	86.9% gloss retention (white)
		78.7% gloss retention (blue)
		81.4% gloss retention (red)
	without DuPont FG-034 [™]	74.7% gloss retention (white)
		54.1% gloss retention (blue)
		54.1% gloss retention (red)
◆ Pencil Hardness (24hours/7hours)	with DuPont FG-034 [™]	3B/3B
	without DuPont FG-034 [™]	6B/3B