

DELTA® Chemical Resistant Polyurethane 3.5 VOC

DGHS 3.5

Delta® DGHS is a fast dry, single stage, conventional VOC polyurethane designed to produce a tough, high gloss finish that resists many solvents and chemicals encountered in specialty fleet segments. DGHS is particularly suited for public transit, liquid gas and chemical hauling, airport ground support and cement mixer applications. Choice of catalyst and optional accelerator make DGHS adaptable to shop conditions. DGHS is available in a wide range of solid-only OEM and custom colors. DGHS exhibits excellent graffiti and mar resistance. DGHS is produced using high strength DMHS universal mixing toners and DMHS599 converter.

Features	Advantages	Benefits
• Excellent hiding power	• Fewer coats	• Labor savings
• Adjustable gloss	• Versatility	• Less product inventory
• Excellent force dry characteristics	• Faster through-cure	• Quicker delivery
• Excellent film properties	• Withstands severe environments	• Longer repaint cycles

Compatible Surfaces

Delta® DGHS may be applied over:

- DX1793 Chrome Free Self Etching Primer
- DPHS52 Low VOC Primer
- DPU174 High Solids Polyurethane Primer
- DPU166 High Solids Chromate Primer 2.8 VOC Max
- OEM Enamels
- Cured Air Dry Finishes

If sanding prior to the application of DGHS, use 240-600 grit wet or dry.

DRS Reducers	
Reducer - Fast (60-70°F)	DRS1460
Reducer -Medium (65-80°F)	DRS1470
Reducer - Slow (75-90°F)	DRS1485
Reducer -Hot Temperatures (85°F and above)	DRS1495
Retarder/Reducer	DRS1498
Hardener	
Catalyst for DGHS 3.5 VOC	DGH350
Required Additive Options	
Accelerator	DX39
Extender	DX53



APPLICATION GUIDE DGHS 3.5

Mixing Ratio:

DGHS : DGH350 : DRS Reducer* + DX39 or DX53
 3 parts : 1 part : 1/4 part* + 6 oz./RTS gallon

*Reduce with DRS1460, DRS1470, DRS1485, DRS1495 Reducer, best suited to shop temperatures.

Pot Life:

2 hours @ 70°F and 50% RH
 (High heat and humidity will shorten pot life)

Additives:

Accelerator: No Recommendation
 Extender: No Recommendation
 Fisheye: No Recommendation
 Flex: No Recommendation
 Flattening: DX595 (See Flattening Ratio)

**Flattening Ratio:
(60° Gloss Meter)****PARTS BY VOLUME**

Gloss Range	DGHS Color	DX595	DRS Reducer*	DGH350
Low Gloss				
10-20	3 parts	3 parts	1/4 part	1 part
Semi Gloss				
40-65	3 parts	1 1/2 parts	1/4 part	1 part

Pot Life: 4 hours @ 70°F and 50% RH

*Reduce with DRS1460, DRS1470, DRS1485, DRS1495 Reducer, best suited to shop temperatures.

Spraygun set-up:**Fluid Tip**

1.0 – 1.4 mm for Pressure Feed/HVLP
 1.3 – 1.7 mm for Conventional Feed/HVLP

Air Pressure

HVLP at air cap 10 PSI
 Conventional at spray gun 45-60 PSI

Consult the Fleet Training Manual Spray Equipment Section for gun set-up requirements.

Minimum number of coats:

2 coats or until hiding is achieved

Total film build per coat:

	<u>Wet</u>	<u>Dry</u>
Minimum	1.6 mils	.9 mils
Maximum	2.0 mils	1.2 mils

Flash Time at 70°F:

Between coats 10 – 15 minutes
 Before force drying 10 minutes

Drying times:**Air Dry @ 70°F
with DX39**

Dust 1 hour
Tack 1.5 hours
Tape 3 hours

**Air Dry @ 70°F
with DX53**

Dust 1.5 hours
Tack 2 hours
Tape 23 hours

Pot Life:

2 hours

3 hours

Force Dry
with DX39**

Flash 10 minutes
30 min. @ 120°F
10 min. @ 180°F

Force Dry
with DX53**

Flash 10 minutes
30 min. @ 120°F
10 min. @ 180°F

*** Force drying times are for quoted surface temperature.
Additional time should be allowed in the force drying schedule to
allow surface to reach recommended temperature.*

Recoat time:

10 – 15 minutes minimum dry and up to 48 hours maximum at 70°F
before sanding is required.

Repair time:

8 hours @ 70°F Air Dry
30 minutes after force dried/cool down period.

Polish:

24 hours @ 70°F

Optional Clearcoating:

Minimum dry 8 hours @ 70°F up to 48 hours. After
48 hours, sanding is required.

Physical Characteristics:

DGHS color	
Gloss (20 degree)	85.7%
Gloss Retention (1000 hrs. QUV):	67.2%
Pencil Hardness *	H

**Film properties, including pencil hardness are given where ultimate air cure is reached, usually 7 days.*

RTS Combinations:	DGHS color	DGHS : DGH350 : DRS : DX39 or DX53	DGHS : DX595 : DRS : DGH350	DGHS : DX595 : DRS : DGH350
Volume Ratio:	As is	3 : 1 : ¼ + 6 oz RTS gal	3 : 3 : ¼ : 1	3 : 1½ : ¼ : 1
Applicable Use Category	Single-Stage Ctg	Single-Stage Ctg	Single-Stage Ctg (Low Gloss)	Single-Stage Ctg (Semi Gloss)
VOC Actual (g/L)	332 – 483	315 – 417	278 – 340	280 – 359
VOC Actual (lbs/gal)	2.77 – 4.03	2.63 – 3.48	2.32 – 2.84	2.34 – 3.00
VOC Regulatory (less water less exempt) (g/L)	332 – 483	315 – 417	278 – 340	280 – 359
VOC Regulatory (less water less exempt) (lbs/gal)	2.77 – 4.03	2.63 – 3.48	2.32 – 2.84	2.34 – 3.00
Density (g/L)	970 – 1212	1005 – 1168	1013 – 1112	1010 – 1136
Density (lbs/gal)	8.09 – 10.11	8.39 – 9.75	8.45 – 9.28	8.43 – 9.48
Volatiles wt. %	31.5 – 49.8	29.7 – 41.5	26.5 – 33.60	26.6 – 35.5
Water wt. %	0.0	0.0	0.0	0.0
Exempt wt. %	0.0	0.0	0.0	0.0
Water vol. %	0.0	0.0	0.0	0.0
Exempt vol. %	0.0	0.0	0.0	0.0
Solids vol. %	N/A	51.2 – 58.3	56.7 – 66.7	57.4 – 66.3
Sq. Ft. coverage (1 mil per RTS US gallon, 100% transfer efficiency)	N/A	821 – 935	909 – 1070	921 – 1063

See Material Safety Data Sheet and Labels for additional safety information and handling instructions

Emergency Medical or Spill Control Information (412) 434-4515; In Canada (514) 645-1320

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