

High Solids Polyurethane Primer

DPU174

DPU174 High Solids Polyurethane Primer is a 2.8 VOC chrome-free polyurethane primer which exhibits excellent adhesion and corrosion resistance when applied over properly prepared steel, galvanized steel, fiberglass and aluminum substrates. DPU174 may be topcoated in as little as 30 minutes, making it an excellent choice for production-oriented fleet refinishers. The primer can be thinned with DRS series reducers, resulting in a 3.5 VOC primer sealer. DPU174 is primarily designed for use with DELTA® High Solids Polyurethane topcoats.

| Features | Advantages | Benefits |
|--|---|---|
| <ul style="list-style-type: none"> Adhesion to a wide variety of substrates Fast dry to topcoat Easy to apply Excellent corrosion resistance | <ul style="list-style-type: none"> Versatility Faster turn around Better flow and leveling Protects substrate | <ul style="list-style-type: none"> Less product inventory Productivity improvement Customer satisfaction Longer repaint cycle/unit life |

Compatible Surfaces

DPU174 may be applied over:

- Properly cleaned and sanded: *steel, *aluminum, fiberglass, galvaneal and galvanized steel
- DPHS52 Low VOC Primer
- DX1793 Chrome Free Self Etching Primer
- DPU166 High Solids Chromate Primer 2.8 VOC Max
- OEM Enamels
- Cured Air Dry Finishes

If sanding bare metal areas prior to the application of DPU174, use 180-240 grit wet or dry. Sand old finishes with 280-400 grit wet or dry.

* Prime aluminum and carbon steel substrates immediately after cleaning.

| | Hardener |
|-----------------------------|---------------------------|
| High Solids Primer Hardener | DPU175 |
| | Required Additive Options |
| Accelerator | DX39 |
| Extender | DX53 |



APPLICATION GUIDE

DPU174

Mixing Ratio 2.8 VOC:



DPU174 : DPU175 + DX39/DX53
 5 parts : 1 part + 6 oz. per RTS gal.

Mixing Ratio 3.5 VOC:



DPU174 : DPU175 + DX39/DX53 : DRS Reducers*
 5 parts : 1 part + 6 oz. per RTS gal.: 1 part

*When adding DRS reducers in the 3.5 VOC blend, for best results, the DRS Solvents must be added last, after the addition of the DX39/DX53

Pot life:



2.8 VOC: 1 hour @ 70°F and 50% RH
 3.5 VOC: 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

Spraygun set-up:



Fluid Tip

1.0 - 1.4 mm for Pressure Feed/HVLP
 1.3 - 1.5 mm for Conventional Feed/HVLP

Air Pressure

HVLP at air cap 10 PSI
 Conventional at spray gun 50-60 PSI

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

Minimum number of coats:

1-2 coats

Total film build per coat:



| | 2.8 VOC | Wet | Dry |
|---------|---------|----------|----------|
| Minimum | | 2.5 mils | 1.5 mils |
| Maximum | | 5.0 mils | 3.0 mils |
| | 3.5 VOC | Wet | Dry |
| Minimum | | 2.9 mils | 1.5 mils |
| Maximum | | 5.8 mils | 3.0 mils |

Flash Time at 70°F:



Between coats 10 minutes
 Before force drying 10 minutes

Drying times:

With DX 39:



Air Dry @ 70°F

Dust 10 minutes
Tack 15 minutes
Tape 2 hours

Force Dry**

Flash 10 minutes
20 minutes @ 130°F
10 minutes @ 160°F

With DX 53:

Air Dry @ 70°F

Dust 15 minutes
Tack 20 minutes
Tape 3 hours

Force Dry**

Flash 10 minutes
20 minutes @ 130°F
10 minutes @ 160°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.*

Dry time to topcoat:

60 minutes @ 70°F for 2.8 VOC*
30 minutes @ 70°F for 3.5 VOC*

** After 72 hours DPU174 must be sanded before additional primer or topcoat can be applied.*

Test Properties:

| Color | Gray |
|--|---------------------|
| Volume Solids (RTS) (5:1+6 oz.) 2.8 VOC | 60.4% |
| Volume Solids (RTS) (5:1:1+6 oz.) 3.5 VOC | 51.8% |
| Square Foot Coverage (RTS US Gallon 100% Transfer Efficiency) | 969 sq. ft. 2.8 VOC |
| Square Foot Coverage (RTS US Gallon 100% Transfer Efficiency) | 831 sq. ft. 3.5 VOC |
| Gloss (20 degree) | 31.6% |
| Gloss Retention (1000 hours QUV) | 100% |
| Pencil Hardnes* | 2B |

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

| RTS Combinations: | DPU174 : DPU175 + DX39/DX53 | DPU174 : DPU175 + DX39/DX53 + 1 part DRS14xx |
|--|-----------------------------|--|
| Volume Ratio: | 5 : 1 + 6 oz/gal | 5 : 1 + 6 oz/gal + 1 part |
| Applicable Use Category | Primer Sealer | Primer Sealer |
| VOC Actual (g/L) | 327 | 399 |
| VOC Actual (lbs/gal) | 2.73 | 3.33 |
| VOC Regulatory (less water less exempt) (g/L) | 327 | 399 |
| VOC Regulatory (less water less exempt) (lbs/gal) | 2.73 | 3.33 |
| Density (g/L) | 1442 | 1361 |
| Density (lbs/gal) | 12.03 | 11.36 |
| Volatiles wt. % | 22.7 | 29.3 |
| Water wt. % | 0.0 | 0.0 |
| Exempt wt. % | 0.0 | 0.0 |
| Water vol. % | 0.0 | 0.0 |
| Exempt vol. % | 0.0 | 0.0 |

Compatible Topcoats:

| | |
|---|---|
| DPHS52 Low VOC Primer | DELTA® (DVHS) Fast Dry 2.8 VOC Polyurethane |
| DELTA® (DSS) Medium Solids Polyurethane | DELTA® (DGHS) Chemical Resistant Polyurethane 3.5 VOC |
| DELTA® (DFHS) Fast Dry High Solids Polyurethane | DELTA® (DGHS) Chemical Resistant Polyurethane 4.4 VOC |
| DELTA® (DUHS) High Solids Polyurethane | DELTA® (DHS) 2.8 VOC Polyurethane |
| DELTA® (DUHS) Basecoat | |

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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