U280 Single Stage

Description
U280 Single Stage is two-component, acrylic urethane designed for original equipment and repairs for commercial vehicles. U280 Single Stage is a cost-effective durable finish with good color capability that is simple to mix and easy to apply. U280 Single Stage is HAPs compliant with a ready to spray VOC < 2.8 lbs/gal.

3 U280 Single Stage RM
1 U280 / U350 Hardener

Use AkzoNobel Measuring Stick 106

Spray gun setup:
- HVLP – Pressure: 1.0 – 1.2mm Max 10psi (cap) 12 – 16 oz/min
- HVLP – Gravity Feed: 1.4 – 1.5mm Max 10psi (cap)

Apply two (2) to three (3) single flowing coats

Between coats: 10 - 15 min at 70°F (21°C)
Before curing: 5 - 10 minutes at 70°F (21°C)

Dust Free: 70°F (21°C) 50 min 140°F (60°C) N.A.
Dry to handle: 12 hrs 45 min

Use suitable respiratory protection
AkzoNobel recommends the use of a fresh air supply respirator

Read complete TDS for detailed product information
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**Suitable Surfaces**

Existing finishes, degreased and sanded with #P320 to #P400 grit paper dry or #P600 to #P800 grit wet is recommended

- 2K Surfercer
- 2K100 Surfacer
- 2K20 Surfacer
- 460 Tintable Sealer
- 460 Flex Tintable Sealer

**Product and Additives**

**Product**
- U280 Single Stage RM

**Hardener**
- U280 / U350 Hardener

**Additives**
- 998 Accelerator: Accelerates dry times
- 997 Enhancer: Pot life extender. Slows flash off, allowing better melt-in at high temperatures
- LV Flex: For flexible substrate application
- F100 Flattening Agent: Low gloss additive
- U-TECH SRA Reducer: Special solvent to dissolve fade out areas of spot repairs

**Basic Raw Material**

- U280 Single Stage RM: Acrylic urethane
- U280 / U350 Hardener: Polyisocyanate resins

**Product Characteristics**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPG (RM color)</td>
<td>8.8 – 10.5 lbs/gal</td>
</tr>
<tr>
<td>Volume Solids (RTS)</td>
<td>45% +/- 2%</td>
</tr>
<tr>
<td>Theoretical Coverage</td>
<td>722 ft²/gal @ 1mil – 100%TE</td>
</tr>
<tr>
<td>Gloss</td>
<td>High</td>
</tr>
<tr>
<td>Color</td>
<td>Solid, metallic and pearl</td>
</tr>
<tr>
<td>Pot Life (no additives)</td>
<td>4 hr @ 70°F (21°C)</td>
</tr>
<tr>
<td>Pot Life w/ 998 Accel</td>
<td>1 hr @ 70°F (21°C)</td>
</tr>
<tr>
<td>Pot Life w/ 997 Enhancer</td>
<td>5 hrs @ 70°F (21°C)</td>
</tr>
</tbody>
</table>
Mixing

High Gloss
3 U280 Single Stage RM
1 U280 / U350 Hardener
Use AkzoNobel Measuring Stick #106 for 3:1 ratio

Low Gloss
Mix 100 part by weight Ready Mix Color with F100 Flattening Agent according to the table below
5 U280 Single Stage RM Low Gloss with F100
1 U280 / U350 Hardener
Use AkzoNobel Measuring Stick #107 for 5:1 ratio

<table>
<thead>
<tr>
<th>Gloss Range</th>
<th>Amount of RM Color by weight</th>
<th>Amount of F100 by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antique (70 – 80)</td>
<td>100</td>
<td>10 – 70</td>
</tr>
<tr>
<td>Eggshell (50 – 60)</td>
<td>100</td>
<td>100 – 140</td>
</tr>
<tr>
<td>Semi gloss (40 – 50)</td>
<td>100</td>
<td>140 – 180</td>
</tr>
<tr>
<td>Matte (20 – 30)</td>
<td>100</td>
<td>200 – 240</td>
</tr>
<tr>
<td>Flat (10 - 20)</td>
<td>100</td>
<td>240 - 300</td>
</tr>
</tbody>
</table>

High amount of F100 Flattening Agent may cause a drop in coverage. Amount of F100 may vary from color to color

Flexed Parts
When spraying U280 over flexible substrates that have been primed with a U-Tech primer that has been flexed use the LV Flex Additive at the following ratio by volume
100 U280 Single Stage RM
15 LV Flex Additive
Then activate the flexed U280 Single Stage to the following ratio by volume
3 U280 Single Stage RM – Flexed
1 U280 / U350 Hardener

Viscosity

U280 Single Stage RM
25 – 35 sec EZ ZAHN #2 at 70°F (21°C)
Viscosities are reported as Ready to Spray

Spray gun set-up / application pressure

<table>
<thead>
<tr>
<th>Setting</th>
<th>Min / Max</th>
<th>Pressure Feed / Gravity Feed</th>
<th>Max psi (cap)</th>
<th>min / max oz/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP – Pressure Feed</td>
<td>0.8 – 1.4mm</td>
<td>30 – 36psi</td>
<td>12 – 16 oz/min</td>
<td></td>
</tr>
<tr>
<td>RP – Gravity Feed</td>
<td>1.2 – 1.4mm</td>
<td>30 – 35psi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVLP – Pressure</td>
<td>1.0 – 1.2mm</td>
<td>Max 10psi (cap)</td>
<td>12 – 16 oz/min</td>
<td></td>
</tr>
<tr>
<td>HVLP – Gravity Feed</td>
<td>1.4 – 1.5mm</td>
<td>Max 10psi (cap)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Application

**Solids** - Apply two (2) to three (3) single flowing coats. Follow recommended flash time between coats.

**Alternate Application for High Hiding Solid Colors Only**: Apply one (1) single wet coat followed by a cross-coat (½). Only spray a maximum of 3 panels then go back and cross coat your first coat. If the system is flashed longer than 5 minutes prior to cross coat proper flow may not be achieved. If so wait the full flash time of 10 -15 minutes than reapply another full wet coat.

**Metallics** - Apply two (2) single flowing coats. Follow the recommended flash time between coats. Each coat of U280 Single Stage should be applied with sufficient flow, but should not be applied too heavily or excessive mottling will occur. Once hiding has been achieved an orientation coat may be applied if required. Allow a short flash of 5 - 10 minutes @ 70°F (21°C) then even out the metallic pattern with a final mist coat by lowering air pressure 3 - 5 psi and hold the spray gun at a 45° angle to the panel with increased distance of about 10 - 15 inches. Adjust the material flow from the spray gun by means of trigger control. Do not make this coat too wet. A light mist coat lightens the color. A heavy or wet mist coat will make the color darker. Proper application greatly affects the final color appearance.

**Note**: U280 Single Stage will continue to flow and level during flash and bake.

**Integrated Clearcoat (solid colors only)**: Apply two (2) to three (3) coats of U280 Single Stage for coverage. Allow single stage to flash 10 – 15 minutes. Activate HS21 Clearcoat (see HS21 Clearcoat TDS). Then integrate RTS HS21 Clearcoat with U280 Single Stage RM color 1:1 by volume. Apply final wet coat.

**Clearcoat**: For added durability one (1) wet coat of HS21 clear may be applied over U280 Single Stage. Allow single stage to flash for at least one hour prior to clear coating. Recommend using 998 accelerator in U280 Single Stage when clear coating.

Flash off

- 10 – 15 minutes at 70°F (21°C) between coats
- 5 – 10 minutes at 70°F (21°C) final flash before bake

Dry times

<table>
<thead>
<tr>
<th></th>
<th>No Additives</th>
<th>1oz 998 Accelerator per gal</th>
<th>2oz 997 Enhancer per gal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70°F (21°C)</td>
<td>140°F (60°C)</td>
<td>70°F (21°C)</td>
</tr>
<tr>
<td>Dust Free</td>
<td>50 min</td>
<td>N.A.</td>
<td>20 min</td>
</tr>
<tr>
<td>Dry to handle</td>
<td>12 hrs</td>
<td>45 min</td>
<td>90 min</td>
</tr>
</tbody>
</table>

**Note**: 998 will decrease pot life. Extreme temperatures may require higher amounts of 997.
**Technical Data Sheet**

**Topcoats**

**U280 Single Stage**

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**Dry Film Thickness**

1.8 – 2.2 mils
Some colors require higher DFT to achieve opacity

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**Recoatability**

U280 Single Stage can be recoated with itself at any stage or clear coated after 1 hour flash at 70°F (21°C). Sanding is necessary after 24 hours.

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**Polishability**

Dust and minor damage can be polished out after recommended dry times. If baking, allow a cool down period of the object to ambient temperature.
- Carefully de-nib out dust particles with #1500 then #2000 grit paper. Clean and dry the surface
- Mechanically polish area using quality rubbing compounds followed by polishing glaze
- For extensive color sanding and buffing of solid colors, it is necessary to apply one (1) or two (2) HS21 Clear.

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**Cleaning of equipment**

Clean equipment with extra strong cleaning solvents

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**VOC**

<table>
<thead>
<tr>
<th>U280 Single Stage RM</th>
<th>&lt; 2.8 lb/gal</th>
<th>&lt; 336 g/l</th>
</tr>
</thead>
</table>

VOC is ready to spray at a mix ratio of 3:1

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**Product Storage and Shelf Life**

Store products unopened and used products with closed lids. Store products between 70°F-95°F (21°C-35°C). Optimal storage temperature is 77°F (25°C). Avoid extreme temperature fluctuation when storing.

- Intermix Tints: 2 years
- U280 Binder: 2 years
- U280 / U350 Hardener: 1 year
- 998 Accelerator: 1 year
- 997 Enhancer: 1 year
- LV Flex Additive: 1 year
U280 Single Stage

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IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user’s responsibility to verify that this data sheet is current prior to using the product.

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