

Technical Data Sheet

U350 Single Stage

FOR PROFESSIONAL USE ONLY

Description

U350 Single Stage is two-component polyurethane designed for original equipment and repairs for commercial vehicles. U350 Single Stage is a cost-effective durable finish with good color capability that is simple to mix and easy to apply. U350 Single Stage is HAPs compliant with a ready to spray VOC < 3.5 lbs/gal.



3 1

Use AkzoNobel Measuring Stick

U350 Single Stage RM U280 / U350 Hardener



106



Spray gun setup:	
RP – Pressure Feed	0.8 – 1.4mm
RP – Gravity Feed	1.2 – 1.4mm
HVLP – Pressure	1.0 – 1.2mm
HVLP – Gravity Feed	1.4 – 1.5mm

Check gun manufacture specification 30 – 36psi 12 – 16 oz/min 30 – 35psi Max 10psi (cap) 12 – 16 oz/min 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)



 70°F (21°C)
 140°F (60°C)

 Dust Free
 55 min
 N.A.

 Dry to handle
 15 hrs
 45 min



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

Read complete TDS for detailed product information





Technical Data Sheet Topcoats

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Suitable Surfaces

Existing finishes, degreased and sanded with #P320 to #P400 grit paper dry or #P600 to #P8002K SurfacerE350 Epoxy Primer2K100 SurfacerE380/E381 Epoxy Primer2K20 SurfacerPAP722460 Tintable Sealer460 Flex Tintable Sealer

Product and Additives

- **Product** U350 Single Stage RM
- Hardener U280 / U350 Hardener

998 Accelerator 997 Enhancer

Additives LV Flex F100 Flattening Agent B91 Reducer SRA B92 Reducer LV SRA Accelerates dry times Pot life extender. Slows flash off, allowing better melt-in a high temperatures For flexible substrate application Low gloss additive Special solvent to dissolve fade out spot repair areas Low VOC solvent to dissolve fade out spot repair areas

Basic Raw Material

U350 Single Stage RM U280 / U350 Hardener Polyol resins Polyisocyanate resins

Product Characteristics

WPG (RM color) Volume Solids (RTS) Theoretical Coverage 8.0 – 9.5 lbs/gal 45% +/- 2% 722 ft²/gal @ 1mil – 100%TE

Gloss Color Pot Life (no additives) Pot Life w/ 998 Accel Pot Life w/ 997 Enhancer High Solid, metallic and pearl 4 hr @ 70°F (21°C) 1 hr @ 70°F (21°C) 5 hrs @ 70°F (21°C)





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Mixing

High Gloss

3 U350 Single Stage RM

1 U280 / U350 Hardener

Use AkzoNobel Measuring Stick #106 for 3:1 ratio Add up to 1oz of 998 Accelerator per RTS gallon to speed up cure

Low Gloss

Mix 100 part by weight Ready Mix Color with F100 Flattening Agent according to the table below

- 5 U350 Single Stage RM Low Gloss with F100
- 1 U280 / U350 Hardener

Use AkzoNobel Measuring Stick #107 for 5:1 ratio

Gloss Range	Amount of RM Color by weight	Amount of F100 by weight
Antique (70 – 80)	100	10 – 70
Eggshell (50 – 60)	100	100 – 140
Semi gloss (40 – 50)	100	140 – 180
Matte (20 – 30)	100	200 - 240
Flat (10 - 20)	100	240 - 300

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 U350 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 U350 Single Stage RM
- 15 LV Flex Additive

Then activate the flexed U350 Single Stage to the following ratio by volume

- 3 U350 Single Stage RM Flexed
- 1 U280 / U350 Hardener

Viscosity



U350 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



RP – Pressure Feed	
RP – Gravity Feed	
HVLP – Pressure	
HVLP – Gravity Feed	

0.8 – 1.4mm 1.2 – 1.4mm 1.0 – 1.2mm 1.4 – 1.5mm 30 – 36psi 30 – 35psi Max 10psi (cap) Max 10psi (cap) 12 – 16 oz/min

12 – 16 oz/min





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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 ($\frac{1}{2}$). 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 U350 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: U350 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 U350 Single Stage for coverage. Allow single stage to flash 10 – 15 minutes. Activate MS Clearcoat (see MS Clearcoat TDS). Then integrate RTS MS Clearcoat with U350 Single Stage RM color 1:1 by volume. Apply final wet coat.

Clearcoat: For added durability one (1) wet coat of MS clear may be applied over U350 Single Stage. Allow single stage to flash for at least one hour prior to clear coating. Recommend using 998 accelerator in U350 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

	No Additives		1oz 998 Accelerator per RTS gal		2oz 997 Enhancer per RTS gal	
	70°F (21°C)	140°F (60°C)	70°F (21°C)	140°F (60°C)	70°F (21°C)	140°F (60°C)
Dust Free Dry to handle	55 min 15 hrs	N.A. 45 min	35 min 105 min	N.A. 35 min	70 min 15 hrs	N.A. 45 min

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





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Dry Film Thickness

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

Recoatability

U350 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.

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) MS Clear

Cleaning of equipment

Clean equipment with extra strong cleaning solvents

VOC

U350 Single Stage RM

< 3.5 lb/gal

< 420 g/l

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

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 Tints2 yearsU350 Binder2 yearsU280 / U350 Hardener1 year998 Accelerator1 year997 Enhancer1 yearLV Flex Additive1 year





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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 development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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