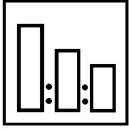


Autoclear HS+

FOR PROFESSIONAL USE ONLY

Description

Autoclear HS + is a high-solids acrylic urethane clearcoat for use over Autobase Plus®. A National Rule compliant acrylic urethane clearcoat, Autoclear HS + offers high gloss and is designed for baking conditions. With the choice of activators, can be used for small areas and large areas under different temperature environments.



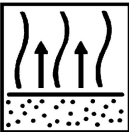
3:1:1
Autoclear HS +
Autocryl Hardener
Sikkens Standard Activator



Use the Sikkens Measuring Stick #9 (Gray)



2 x 1
HVLP Siphon
0.071"-0.087 (1.8–2.2mm)
HVLP Gravity
0.055"-0.059 (1.4–1.5mm)
Max 10 psi (max 0.8 bar)



6-10 minutes at 70°F (20°C)



Autocryl Hardener
Sikkens Standard Activator
12 hours at 70°F (20°C)
35 minutes at 140°F (60°C)



Use suitable respiratory protection

Contains acrylic resins, xylene and other ingredients. When mixed, Autoclear Mat also contains isocyanates.

Read complete TDS for detailed product information

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Product and additives

Product:	Autoclear HS+
Hardeners:	<ul style="list-style-type: none"> -Autocryl® Hardener: a general purpose hardener for all repair sizes above 85°F (28°C), generally chosen for high temperatures. -Autocryl® Hardener Rapid: a fast curing hardener for all repair sizes under 95°F (32°C), generally chosen for production work at lower temperatures.
Reducers:	<ul style="list-style-type: none"> -Sikkens Extra Slow Activator: an extra slow activated reducer for larger areas and overall refinishing in very warm weather. Temperatures of 90°F (32°C) and above. -Standard Activator: a general-purpose activated standard reducer for larger areas and overall refinishing. Temperatures of 60°F-105°F (16°- 38°C). -Production Activator: an activated production reducer for medium and spot and panel repairs Temperatures of 60°F-90°F (16°-32°C). -Rapid Activator: an accelerated activated reducer for spot and panel repairs at 55°F-85°F (15°C-28°C)
Additives:	<ul style="list-style-type: none"> -Autocryl Elast-O-Actif: additive to increase flexibility for use on flexible parts. The addition of 33% is added for flexible and 100% for soft foam parts. This is added before hardening and reducing. -Autocryl Extratop: a catalyst additive, providing faster hardening of Autoclear HS +. -Autoclear Mat: a special clearcoat with a mat finish. The gloss of Autoclear HS + can be reduced with blending of Autoclear Mat.

Basic raw materials

- Autoclear HS +: hydroxyl acrylic resins
- Autocryl Hardener: polyisocyanate resins
- Autocryl Hardener Rapid: polyisocyanate resins
- Extra Slow and Standard Activator: special activated solvent blends
- Production Activator and Rapid Activator: activated reducers containing special solvent blends and catalyst.

Suitable surfaces

- Sikkens Autobase Plus® Solid, Metallic and Pearl Colors: after a flash-off time of 15–20 minutes at 70°F (20°C).
- Existing finishes that have been sanded and degreased. In the case of spot repairs and blending, see TDS “Spot Repairs with Autobase Plus”.
- Autocryl Solid Colors: after a flash of 15 minutes

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Mixing ratio

Mix: 3 parts by volume of Autoclear HS +
1 part by volume of Autocryl Hardener or Autocryl Hardener Rapid.
1 part by volume of Extra Slow, Standard, Production or Rapid Activator.

For easy and accurate mixing, use the Sikkens Measuring Stick # 9 (Gray)

Spraying viscosity

13-15 sec. DIN cup #4 at 70°F (20°C)

Potlife

3 hours at 70°F (20°C) using Extra Slow Activator
2 hours at 70°F (20°C) using Standard or Production Activator
1 hour at 70°F (20°C) using Rapid Activator

Spray gun & pressure

	Fluid Tip	Spraying Pressure
Siphon Feed	0.055"–0.067" (1.4–1.7 mm)	40–50 psi (3–4 bar)
Gravity Feed	0.051"–0.059" (1.3–1.5 mm)	40–50 psi (3–4 bar)
HVLP Siphon	0.071"–0.087" (1.8–2.2 mm)	max. 10 psi (max. 0.8 bar)
HVLP Gravity	0.055"–0.059" (1.4–1.5 mm)	max. 10 psi (max. 0.8 bar)

Application method

Apply 2 single wet coats. If heavy sanding and polishing is required, a third coat may be applied after the stated flash off time.

Flash times

6–10 minutes at 70°F (20°C) with Standard Activator
4– 6 minutes at 70°F (20°C) with Production Activator
No flash at 70°F (20°C) with Rapid Activator

Drying time

Below is a table showing the drying times of Autoclear HS + with **Autocryl Hardener**. The air-dry times stated may vary with insufficient airflow.

Metal Temp.	Drying	Extra Slow Activator	Standard Activator	Production Activator	Rapid Activator
70°F (20°C)	Dust Free	N/A	1 hr	35 min	30 min
	Dry	N/A	12 hr	8 hr	5 hr
140°F (60°C)	Dust Free	25 min	20 min	15 min	10 min
	Dry	40 min	35 min	25 min	20 min

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Below is a table showing the drying times of Autoclear HS + with **Autocryl Hardener Rapid**. The air-dry times stated may vary with insufficient airflow.

Metal Temp.	Drying	AC Hardener Rapid Standard Activator	AC Hardener Rapid Production Activator	AC Hardener Rapid Rapid Activator
70°F (20°C)	Dust Free	1 hr	35 min	30 min
	Dry	11 hr	8 hr	5 hr
140°F (60°C)	Dust Free	20 min	15 min	10 min
	Dry	30 min	20 min	15 min

Drying times (including Extratop)

Below is a table showing the drying times of Autoclear HS + with **Autocryl Hardener** and the addition of Autocryl Extratop. The air-dry times stated may vary with insufficient airflow.

Metal Temp.	Drying	Extra Slow Activator	Standard Activator	Production Activator	Rapid Activator
70°F (20°C)	Dust Free	N/A	1 hr	35 min	30 min
	Dry	N/A	11 hr	8 hr	5 hr
140°F (60°C)	Dust Free	25 min	20 min	15 min	10 min
	Dry	35 min	30 min	20 min	15 min

Below is a table showing the drying times of Autoclear HS + with **Autocryl Hardener Rapid** and the addition of Autocryl Extratop. The air-dry times stated may vary with insufficient airflow.

Metal Temp.	Drying	AC Hardener Rapid Standard Activator	AC Hardener Rapid Production Activator	AC Hardener Rapid Rapid Activator
70°F (20°C)	Dust Free	1 hr	35 min	N/A
	Dry	10 hr	7 hr	N/A
140°F (60°C)	Dust Free	20 min	15 min	N/A
	Dry	25 min	20 min	N/A

Recoatibility

Autoclear HS + can be re-coated with itself at any stage. Sanding will become necessary after 12 hours.

Film thickness

1.2–2.0 mils per single coat

Coverage rate

Approximately 103 sq. ft./liter of unmixed paint at a film thickness of 2.5 mils

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Polishing

Dust and minor damage can be polished out after the stated air-dry times have been reached, or after a full bake at 140°F (60°C) metal temperature followed by a cool down of panel to ambient temperature. Carefully sand out dust particles with #10 micron (#1500) grit paper wet, and then polish the area manually or mechanically.

Note: When heavy color sanding and rubbing are required, it may be necessary to apply one extra coat of Autoclear HS +.

Decals

Decals can be applied after 48 hours at 70°F (20°C)

Lettering

Hand striping or lettering must be applied within 48 hours for good adhesion. After 48 hours, scuff with a gray scuffing pad.

Cleaning of equipment

Clean equipment with Sikkens Cleaning Solvent 790 or lacquer thinner.

Stock keeping

Color: Clear

Container size:

Autoclear HS +: 1 gallon (3.785 lt)

Autocryl Hardener & Autocryl Rapid Hardener: 1 gallon (3.785 lt) or 1 quart (0.8 lt)

Extra Slow, Standard, Production and Rapid Activator: 1 gallon (3.785 lt)

Shelf life:

Autoclear HS +: Two years if stored unopened at room temperature.

Autocryl Hardener: One year if stored unopened at room temperature.

Extra Slow, Standard,

Production and Rapid Activator: Six months if stored unopened at room temperature

Safety aspects

Ready to Spray VOC

(3:1:1)

When mixed ready to spray

Autoclear HS + yields a VOC content of: 4.2 lb/gal 505 g/liter

Notice: Do not handle until the Material Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Material Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist.



North America

Technical Data Sheet 5.2.64

Clearcoat
05.28.2010

Autoclear HS+

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Akzo Nobel Car Refinishes Inc. North America

Address: 3587 Parkway Lane, Norcross. GA 30092 USA

Tel: 770-662-8464

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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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