Autoclear® HS+LV

FOR PROFESSIONAL USE ONLY

Description
Autoclear HS+ LV is a high-solids acrylic urethane clearcoat for use with Autobase Plus and Autowave. Autoclear HS+ LV offers both a high gloss clearcoat and a productive clearcoat with the use of different hardener and activator combinations. Autoclear HS+ LV enables Sikkens customers to meet the most stringent VOC laws in the Car Refinish Market.

<table>
<thead>
<tr>
<th>3:1:1</th>
<th>Autoclear HS+ LV</th>
<th>Autoclear HS+ LV Hardener</th>
<th>LV LH Activator Medium</th>
</tr>
</thead>
</table>

Use Sikkens Measuring Stick #9 (Grey)

<table>
<thead>
<tr>
<th>2x1</th>
<th>HVLP-Siphon 1.8–2.2 mm</th>
<th>HVLP-Gravity 1.3–1.5 mm</th>
<th>Max 10 psi (air cap)</th>
</tr>
</thead>
</table>

6-10 minutes at 70°F (20°C)

<table>
<thead>
<tr>
<th>Use suitably respiratory protection</th>
<th>Contains acrylic resins and other ingredients. When mixed, also contains isocyanates.</th>
</tr>
</thead>
</table>

Read complete TDS for detailed product information
Description
Autoclear HS+ LV is a high-solids acrylic urethane clearcoat for use with Autobase Plus and Autowave. Autoclear HS+ LV offers both a high gloss clearcoat and a productive clearcoat with the use of different hardener and activator combinations. Autoclear HS+ LV enables Sikkens customers to meet the most stringent VOC laws in the Car Refinish Market.

Product and additives

| Product: | Autoclear HS+LV |
| Hardener: | Autoclear HS+ LV Hardener: a general purpose hardener for all repair sizes |
| Reducers: | -LV LH Activator Slow : a general-purpose activated standard reducer for larger areas and overall refinishing. Temperatures of 60°F-105°F (16°-38°C). |
| | -LV LH Activator Medium: an activated production reducer for medium sized areas and spot and panel repairs. Temperatures of 60°F-90°F (16°-32°C). |
| Additives: | -LV Elast-O-Actif; an additive designed to increase clearcoat flexibility for use on flexible plastic parts with a 10% addition. See “LV Elast-O-Actif” TDS. |
| | - Autoclear Mat LV; a special clearcoat with a matt finish. The gloss level of Autoclear HS + LV can be reduced with the blending of Autoclear Mat LV. The main application is on plastic parts. See Technical Data Sheet,”Autoclear Mat LV”. |

Basic raw materials

- Autoclear HS+ LV: hydroxyl acrylic resins
- Autoclear HS+ LV Hardener: polyisocyanate resins
- LV LH Activator Slow : special activated solvent blends
- LV LH Activator Medium and LV LH Activator Spot and Panel: activated reducers containing special solvent blends and catalyst.

Suitable surfaces

- Autobase® Plus Solid, Metallic and Pearl Colors: after a flash-off time of 15–20 minutes at 70°F (20°C).
- Autocoat LV Solid Colors: after a flash of 15 minutes.
- Existing finish, in the case of spot repairs and blending.

Mixing ratios

Mix: 3 parts by volume of Autoclear HS+ LV
1 part by volume of Autoclear HS+ LV Hardener
1 part by volume of LV LH Activator Slow, LV LH Activator Medium or LV LH Activator Spot and Panel

Note: When mixing Autoclear HS + LV for flexible plastic parts, mix Autoclear HS + LV with 10% LV Elast-O-Actif (Mixing Stick #14 Blue). This mixture must then be further mixed 3:1:1 with Autoclear HS + LV Hardener the appropriate LV LH Activator.

Spraying viscosity

13-15 seconds. DIN Cup #4, 70°F (20°C)

Pot life

2 hours at 70°F (20°C)
**Spray gun and pressure**

<table>
<thead>
<tr>
<th></th>
<th>Fluid Tip</th>
<th>Spraying Pressure</th>
<th>Fluid Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Transfer</td>
<td>1.3-1.5 mm</td>
<td>35 psi</td>
<td></td>
</tr>
<tr>
<td>Gravity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Transfer</td>
<td>1.0-1.2 mm</td>
<td>35 psi</td>
<td>10-15 psi</td>
</tr>
<tr>
<td>Pressure Feed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVLP Pressure Feed</td>
<td>0.8-1.0 mm</td>
<td>max 10 psi (air cap)</td>
<td>10-15 psi</td>
</tr>
<tr>
<td>Siphon</td>
<td>1.8-2.2 mm</td>
<td>max 10 psi (air cap)</td>
<td></td>
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</tr>
</tbody>
</table>

**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 LV LH Activator Slow
- 4–6 Minutes at 70°F (20°C) with LV LH Activator Medium
- No flash at 70°F (20°C) with LV LH Activator Spot and Panel

**Drying times**

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

<table>
<thead>
<tr>
<th>Metal Temp.</th>
<th>Drying</th>
<th>LV LH Activator Slow</th>
<th>LV LH Activator Medium</th>
<th>LV LH Activator Spot and Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>70°F (20°C)</td>
<td>Dust Free</td>
<td>1 hr</td>
<td>35 min</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td>Dry</td>
<td>10 hr</td>
<td>7 hr</td>
<td>4 hr</td>
</tr>
<tr>
<td>140°F (60°C)</td>
<td>Dust Free</td>
<td>20 min</td>
<td>15 min</td>
<td>7 min</td>
</tr>
<tr>
<td></td>
<td>Dry</td>
<td>30 min</td>
<td>20 min</td>
<td>10 min</td>
</tr>
</tbody>
</table>

**Note:** No flash time is required prior to force dry. After the last coat of clear is applied, immediately bake at 140°F (60°C).

**Recoatability**

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

**Film thickness**

Approximately 1.2–1.4 mils per single coat.

**Cover rate**

Approximately 110 sq. ft./liter of unmixed paint at a film thickness of 2.5 mils.
Polishing

Dust and minor damage can be polished out after the "Dry to Polish" times listed previously in this TDS have been reached.

Process: Carefully color sand, removing dust particles with #1500 grit paper wet. Final sand (in a right-angled direction to the #1500 grit) with #2000 grit paper wet. Or finish with the 3 M Trizact P3000 systems. Make sure water is fresh and clean and no contaminants enter during this process, as this will scratch the surface. Clean and dry the surface to be polished.

Suggested compounds: 3M products

Step one: Use Perfect-It 3000 Rubbing Compound, Part No. 06062. Compound should be applied with a white wool pad, Part No. 05711.

Step two: Use Perfect-It 3000 Swirl Mark Remover, Part No. 06064. Use a Perfect-It Foam Polishing Pad, Part No. 05725.

Step three: Apply Perfect-It 3000 Final Glaze, Part No. 06066. With a Perfect-It II Foam Glazing Pad, Part No. 05739.

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

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 grey scuffing pad.

Cleaning of equipment

Clean equipment with Sikkens Gun Cleaning Solvent LV.

Stock keeping

<table>
<thead>
<tr>
<th>Color</th>
<th>Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container size:</td>
<td></td>
</tr>
</tbody>
</table>

- Autoclear HS+LV: -1 gallon (3.785 lt) or 1 quart (0.8 lt)
- Autoclear HS+LV Hardener: -1 gallon (3.785 lt)
- LV LH Activator Slow, LV LH Activator Medium and LV LH Activator Spot and Panel

| Shelf life:        |

- Autoclear HS+LV: -One year if stored unopened at room temperature
- Autoclear HS+LV Hardener: -Six months if stored unopened at room temperature
- LV LH Activator Slow, LV LH Activator Medium and LV LH Activator Spot and Panel -Six months if stored unopened at room temperature

Safety aspects

Ready to spray VOC:
(3:1:1) When mixed ready to spray, Autoclear HS+LV yields a VOC content of: 1.9 lb/gal 228 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 protective equipment when mixing and spraying this material. Protect skin with gloves and spray suit, wear safety glasses or goggles when mixing, and wear a full hood fresh air-fed respirator while spraying.

Akzo Nobel Car Refinishes Inc. North America
Address: 5555 Spalding Drive, 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 advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully.

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Head Office
Akzo Nobel Car Refinishes B.V., PO Box 3, 2170 BA Sassenheim, The Netherlands. www.sikkenscr.com