



AUTOCLEAR[®] MAT

DESCRIPTION: Autoclear Mat is a two-part acrylic urethane clearcoat with a matt finish. Higher gloss levels can be reached by mixing with any Sikkens urethane clear, i. e. Autoclear II or Autoclear III. The main application is to achieve a lower gloss level over plastic parts. For VOC recording, Autoclear Mat will be listed as a specialty coating under "Elastomeric Refinishing" or "Antiglare Coatings".

PRODUCT & ADDITIVES:

PRODUCT: Autoclear Mat

HARDENERS:

- Autocryl Hardener: a general purpose hardener for all repair sizes.
- Autocryl Hardener Rapid: a fast curing hardener used for spot and panel repairs, and for cool weather.
- Sikkens Standard Hardener: a general purpose hardener for all repair sizes.

REDUCERS:

- Autocryl Reducer Rapid: an activated reducer for spot and panel work or edging in of parts. Maximum temperature 85°F (30°C).
- Autocryl Reducer Fast: for spot and panel repairs. Temperatures from 60°F–75°F (16°C–24°C).
- Autocryl Reducer Medium: for larger areas. Temperatures from 70°F–85°F (20°C–30°C).

ACTIVATORS:

- Sikkens Production Activator: an accelerated activated reducer for medium repairs. Temperatures from 65°F–95°F (18°C–35°C)
- Sikkens Rapid Activator: an accelerated activated reducer for spot and panel repairs at 55°F–85°F (15°C–28°C)

ADDITIVES:

- Autocryl Elast-O-Actif: additive to increase flexibility of Autoclear Mat, for use on flexible parts.
- Autocryl Extratop: a catalyst additive which provides faster hardening of Autoclear Mat.
- Autoclear II: Autoclear II may be added up to 20% to raise the gloss level of Autoclear Mat. If higher levels of gloss are needed, Autoclear II must be mixed as per TDS. Then added to the ready-to-spray Autoclear Mat mixed with Autocryl Hardener or Autocryl Hardener Rapid, mixed 3:1:1.
- Autoclear III: Please see heading "Adjustment of Gloss Level" and "Mixing Ratios C and D" in this technical data sheet.



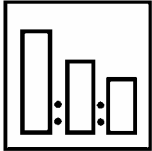
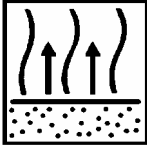


NOTE: Please see technical data sheet on Sikkens Standard Hardener/Sikkens Activators.

BASIC RAW MATERIALS:

- Autoclear Mat: hydroxyl acrylic resins
- Autocryl Hardeners: polyisocyanate resins
- Sikkens Standard Hardener: polyisocyanate resins

AUTOCLEAR[®] MAT

APPLICATION:

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|----|---|---|----|--|--|
| 1. |  | Contains acrylic resins, xylene and other ingredients. When mixed, Autoclear Mat also contains isocyanates. | 4. |  | 2–3x1
HVLP Siphon
0.071"–0.087" (1.8–2.2 mm)
HVLP Gravity
0.051"–0.059" (1.3–1.5 mm)
Max 10 psi (max 0.8 bar) |
| 2. |  | 3:1:1
Autoclear Mat
Autocryl Hardener Rapid
Autocryl Reducer | 5. |  | 5–10 minutes at 70°F (20°C) |
| 3. |  | Use the Sikkens Measuring Stick #9 (Grey). | 6. |  | 10 hours at 70°F (20°C)
30 minutes at 140°F (60°C) |

ALTERNATE MIXING:

Using Sikkens Standard Hardener with Sikkens Production Activator, Autoclear Mat should be mixed as follows:
100 parts by volume of Autoclear Mat, with
50 parts by volume of Standard Hardener
30 parts by volume of Sikkens Production Activator.
For easy and accurate mixing, use the Sikkens Measuring Stick #1 (Black).

SUITABLE SURFACES:

- Autobase or Autobase Plus Solid, Metallic and Pearl colors: after a flash-off time of 15–20 minutes at 70°F (20°C).
- Autocryl Solid colors: after a flash-off time of 15 minutes. Autocryl Metallic can be clearcoated after 30 minutes at 140°F (60°C) or 16 hours at 70°F (20°C).
- Existing finish: in the case of spot repair.
See TDS "Spot Repairs with Autobase", TDS "Spot Repairs With Autobase Plus" and TDS "Spot Repairs with Autocryl".



AUTOCLEAR® MAT

ADJUSTMENT OF GLOSS LEVEL:

The following gloss levels can be achieved by mixing Autoclear Mat with Autoclear II or Autoclear III.

Gloss Level	Parts by Weight or Volume Autoclear Mat	Parts by Weight or Volume Autoclear II / III
Matt (10–20 GU)	100	0
Eggshell (40–60 GU)	100	100
Gloss	0	100

(GU = Gloss Units)

Stir the mixture thoroughly, add hardener and reducer to this mixture as shown.

NOTE:

When mixing ready to spray Autoclear II with ready to spray Autoclear Mat, the above ratios should be followed.

NOTE:

When using Autoclear III, both Autoclear III and Autoclear Mat must use the Sikkens Standard Hardener with Sikkens Production Activator at the mixing ratio of 100:50:30.

MIXING RATIOS:

Mixture A: For rigid parts:

- 3 parts by volume Autoclear Mat/Autoclear II mixture
- 1 part by volume Autocryl Hardener Rapid
- 1 part by volume Autocryl Reducer

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

Mixture B: For flexible plastic parts:

- 100 parts by volume Autoclear Mat/Autoclear II mixture
- 33 parts by volume Autocryl Elast-O-Actif

For easy and accurate mixing, use the Sikkens Measuring Stick #9 (Grey). Stir thoroughly; further preparation of the product is as follows:

- 3 parts by volume mixed material
- 1 part by volume Autocryl Hardener Rapid
- 1 part by volume Autocryl Reducer

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

Mixture C: For rigid parts:

- 100 parts by volume Autoclear Mat/Autoclear III mixture
- 50 parts by volume Sikkens Standard Hardener
- 30 parts by volume Sikkens Production Activator

For easy and accurate mixing, use the Sikkens Measuring Stick #1 (Black).

Mixture D: For flexible plastic parts:

- 100 parts by volume Autoclear Mat/Autoclear III mixture
- 20 parts by volume Autocryl Elast-O-Actif

For easy and accurate mixing, use the Sikkens Measuring Stick #14 (Blue). Stir thoroughly; further preparation of the product is as follows:

- 100 parts by volume mixed material
- 50 parts by volume Sikkens Standard Hardener
- 30 parts by volume Sikkens Production Activator

For easy and accurate mixing, use the Sikkens Measuring Stick #1 (Black)



AUTOCLEAR[®] MAT

SOFT PLASTICS:

As the amount of Autocryl Elast-O-Actif necessary to maintain flexibility of the topcoat over soft polyurethane foam parts is high, it is impossible for Autoclear Mat to retain its matt appearance.

For more information on spraying plastic car parts, see "Test Methods for Plastics Identification" TDS.

POT LIFE:

When mixed with Autocryl Hardener Rapid: 45 minutes at 70°F (20°C).
When mixed with Sikkens Standard Hardener and Production Activator: 2 hours at 70°F (20°C)

SPRAYING VISCOSITY:

16–18 sec. ZAHN cup #2 (14–16 sec. DIN cup #4) at 70°F (20°C)

SPRAY GUN & PRESSURE:

	Fluid Tip	Spraying Pressure	Fluid Pressure
Siphon Feed	0.055"–0.067" (1.4–1.7 mm)	40–50 psi (3–4 bar)	
Gravity Feed	0.051"–0.055" (1.3–1.4 mm)	40–50 psi (3–4 bar)	
Pressure Feed	0.039"–0.047" (1.0–1.2 mm)	40–50 psi (3–4 bar)	8–10 psi (0.6–0.8 bar)
HVLP Siphon	0.071"–0.087" (1.8–2.2 mm)	max. 10 psi (max. 0.8 bar)	
HVLP Gravity	0.051"–0.059" (1.3–1.5 mm)	max. 10 psi (max. 0.8 bar)	

APPLICATION METHOD:

Apply two to three single thin coats, allowing for a flash time of 5–10 minutes between coats. Heavy wet coats will increase the gloss effect.

FLASH TIMES:

The flash times are dependent on air velocity and temperature. The correct choice of reducer should be made by determining the size of job and the spraying temperature. Please refer to subheading "Reducers" earlier in this technical data sheet.



AUTOCLEAR® MAT

DRYING TIME: Autoclear Mat may be air dried or forced dried in a baking booth. The chart below shows the variations of dry times.

Metal Temp.	Drying	Autocryl Hardener	Autocryl Hardener Rapid	Hardener Rapid Reducer Rapid	Sikkens Standard Hardener Production Activator
70°F (20°C)	Dust Free	45 minutes	40 minutes	30 minutes	40 minutes
	Dry	12 hours	10 hours	8 hours	7 hours
100°F (38°C)	Dust Free	25 minutes	20 minutes	15 minutes	20 minutes
	Dry	6 hours	5 hours	4 hours	5 hours
140°F (60°C)	Dust Free	10 minutes	5 minutes	5 minutes	7 minutes
	Dry	35 minutes	30 minutes	25 minutes	25 minutes

FILM

THICKNESS: Approximately 1.0 – 1.2 mils per single coat.

COVER RATE: Approximately 70 sq. ft./liter of unmixed paint at a film thickness of 2.4 mils. It is a requirement that Autoclear Mat be applied at a film thickness of approximately 2.4 mils.

POLISHING: As Autoclear Mat is designed to produce a low gloss (matt) appearance, polishing is never recommended.

CLEANING OF EQUIPMENT: With Sikkens Cleaning Solvent 790 or lacquer thinner.

STOCK KEEPING:

COLOR: Clear

CONTAINER SIZE: 1 liter

SHELF LIFE: Autoclear Mat: Two years if stored unopened at room temperature.

SAFETY ASPECTS:

READY TO SPRAY VOC:

Autoclear Mat/Autocryl Hardener/Autocryl Reducer:	4.7 lb/gal	564 g/liter
Autoclear Mat 100:50:30 with Sikkens Standard Hardener/Production Activator:	4.75 lb/gal	570 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.

