

# Autosurfacers UV

Sikkens Autosurfacers UV is a UV curable surfacer suitable for small to medium repairs. The ability to spray Autosurfacers UV with a spray-gun provides increased application control. The surfacer only requires a short curing by UV light and offers the opportunity to drastically reduce preparation process time.



### Safety Considerations

- Use suitable personal protection.
- AkzoNobel recommends the use of a fresh air supply respirator.
- When curing with Ultra-Violet (UV) lighting it is necessary to use suitable UV protection equipment which covers all skin areas on the user's body. Wear long pants, long sleeves, gloves and cover the face with a UV filtering full face shield.



### Mixing

- Autosurfacers UV requires no activation or mixing.
- Shake well before each use.



### Spray-Gun Set-Up

- 1.0 – 1.2mm HVLP Gravity
- 1.0 – 1.2mm Compliant

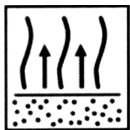
### Application Air Pressure

- HVLP – 10 psi (<0.7 bar) at cap maximum.
- Consult manufacturer specifications.



### Application

- 2 x 1 Coats (2 single coats).



### Flash Between Coats at 70°F (21°C)

- 2 minutes ambient flash
- or-
- 0-45 seconds UV flash (until matte)

### Flash at 70°F (21°C) Before UV Curing

- 5 minutes before HID UV
- or-
- Direct to cure when using UV flash

- ✓ Refer to the **AkzoNobel Approved UV Lights** guide in the **Additional Information** section in the TDS for detailed flash and cure recommendations.



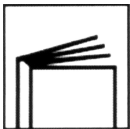
### 400-Watt HID Lamp

- Dry to Handle in 5 minutes

### LED or High-Watt/High Intensity Lamp

- Dry to Handle in 5 seconds to 3 minutes

- ✓ **Important** – Ensure that proper safety equipment is used to protect the skin and eyes from UV light exposure.



### Recoating

- As a properly sanded primer surfacer, recoatable with all Sikkens undercoats and topcoats.

Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information.

# Autosurfacers UV (Aerosol)

Sikkens Autosurfacers UV Aerosol is a beneficial UV curable surfacer suitable for small repairs. As an aerosol the convenient package allow for fast application with no clean-up. The surfacer only requires a short curing by UV light and offers the opportunity to drastically reduce preparation process time.



### Safety Considerations

- Use suitable personal protection.
- When exposed to paint or solvents AkzoNobel recommends the use of a fresh air supply respirator.



### Mixing

- Autosurfacers UV Aerosol requires no activation or mixing.
- Shake well before each use.



### Application Distance

- Approximately 5"-7" (12-18 cm)



### Application

- 2 x 1 Coats (2 single coats)



### Flash Between Coats at 70°F (21°C)

- 2 minutes ambient flash
- or-
- 0-45 seconds UV flash (until matte)

### Flash at 70°F (21°C) Before UV Curing

- 5 minutes before HID UV
- or-
- Direct to cure when using UV flash

- ✓ Refer to the **AkzoNobel Approved UV Lights** guide in the **Additional Information** section in the TDS for detailed flash and cure recommendations.



### Clearing Spray Nozzle

- Invert the aerosol and depress the spray nozzle after use. This allows the propellant to clean the nozzle.



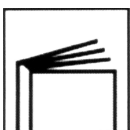
### 400-Watt HID Lamp

- Dry to Handle in 5 minutes

### LED or High-Watt/High Intensity Lamp

- Dry to Handle in 5 seconds to 3 minutes

- ✓ **Important** – Ensure that proper safety equipment is used to protect the skin and eyes from UV light exposure.



### Recoating

- ✓ As a properly sanded primer surfacer, recoatable with all Sikkens undercoats and topcoats.

Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information

## Description

Sikkens Autosurfacers UV is a UV curable surfacer suitable for small to medium repairs. The ability to spray Autosurfacers UV with a spray-gun provides increased application control. The surfacer only requires a short curing by UV light and offers the opportunity to drastically reduce preparation process time.

## Suitable Substrates



- Steel
- Galvanized/zinc coated steel
- Aluminum
- Autoprep Pretreatment Wipes
- Autoprep Etching Pen CF
- Primer PO
- Primer PO LV
- Raw non-olefin plastics
- Fiberglass gelcoat (unbroken)
- Polyester body filler
- Sanded OEM e-coat
- Existing finishes (except acrylic lacquers)

- Autosurfacers UV is not intended for large areas of bare metal. It will however provide adequate adhesion if applied directly to small metal areas. For small bare metal areas that must meet the highest standards, the AkzoNobel Autoprep Pretreatment Wipe is suggested before the application of primer. Allow a minimum of 15 minutes flash-off at 70°F (21°C) after pretreatment application.
- Do not apply Autosurfacers UV over acid-containing wash primers.
- Autosurfacers UV can be applied directly over prepared plastics such as ABS, PC, and PUR.
- Plastics such as PP, PO, TPE, TPO, PP+EP, PP/EPM, PP/EPDM must be pre-coated with Primer PO prior to the application of UV Filler.

## Products and Additives

- |                |   |
|----------------|---|
| <b>Product</b> | <ul style="list-style-type: none"> <li>• Autosurfacers UV (Aerosol) – Item # 483303</li> <li>• Autosurfacers UV Light Grey (750ml) – Item # 546748</li> <li>• Autosurfacers UV Dark Grey (750ml) – Item # 546749</li> </ul> |
|----------------|---|

- SDS and TDS for products available online at – <http://my.anaac.net/>

## Basic Raw Materials



- Autosurfacers UV – Acrylic polymers, acrylic monomers, pigments and mineral charge

## Substrate Preparation



### Pre-Cleaning

- If needed pre-wash the repair with warm soap and water. Rinse completely with clean water.
- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant), and/or Antistatic Surface Cleaner.





### Sanding Preparation

### Dry Sanding

### Wet Sanding

Existing Finishes	#P220 to #P360	#P500 to #P600
OEM E-Coat	#P320 to #P400	N/A

	Premium Polyester Bodyfiller	#P180 to #P220	N/A
	Steel	#P80 then #P120	N/A
	Galvanized Steel	#P120 to #P180 or Red Scuff Pad	N/A
	Aluminum	#P180 or Red Scuff Pad	N/A
	Gel-Coat	#P220 to #P360	#P500 to #P600
	Non-Olefin Plastics	#P320 Dry or Red Scuff Pad	#P500 to #P600

- Respect a maximum 100 sanding grit step difference throughout a dry sanding process.
- Respect a maximum 100 sanding grit step difference throughout a wet sanding process.



### Surface Cleaning – Prior to Application

- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant), and/or Antistatic Surface Cleaner.

## Mixing - General



### Mixing

- Autosurfacers UV does not require activation or mixing.
- Shake well before each use.



## Viscosity – Ready to Spray at 70°F (21°C).



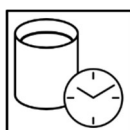
DIN #4

- Autosurfacers UV (liquid)

At 70°F (21°C)

- 15–16 Seconds

## Pot-Life When Mixed



- Up to one year in a closed container when not directly exposed to UV radiation.
  - Using Autosurfacers UV in black RPS/PPS cups is a good way to block UV light.

## Spray Gun Set-Up

Consult spray gun manufactures instructions for specific spray gun pressure specifications.



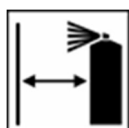
Spray Gun	Fluid Tip	Application Pressure
HVLP Gravity Fed	1.0 – 1.2mm	<10 psi (<0.7 bar) at cap
Compliant Gravity Fed	1.0 – 1.2mm	psi per spray gun manufacturer

## Autosurfacers UV Application Points to Consider



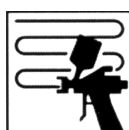
- Autosurfacers UV is semi-transparent to allow proper curing of the primer. Do not spray until hiding. Too much primer thickness may cause adhesion failures due to insufficient through cure.
- Do not apply Autosurfacers UV below a temperature 60°F (16°C). At lower temperatures solvent retention in the coating is high and may cause loss of gloss of the final repair over time.

## Application



### Aerosol Application

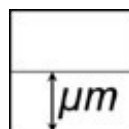
- Hold the can approximately 5"-7" (12-18 cm) from the repair.
- Apply one coat to the outer edge of the sanded area. Next apply the 2<sup>nd</sup> coat within the previous coat.
- Flash-off 2 minutes between the coats at 70°F (21°C) Flash is dependent on ambient temperature, applied layer thickness and airflow.
  - Allow each coat to flash-off naturally, this supports higher film build. Do not force-dry with blown air.
- Immediately after application invert can and push nozzle to flush tip of paint with propellant.
  - Failing to clear nozzle of paint residue may clog and damage the tip.



### Liquid Application

- Apply one wet coat to the outer edge of the sanded area. Next, apply the 2<sup>nd</sup> coat within the previous coat.
- If using UV assisted flash, refer to the **AkzoNobel Approved UV Lights** guide in the **Additional Information** section at the bottom of this TDS.
- If not using UV assisted flash, allow 2 minutes at 70°F (21°C) between the coats. Flash is dependent on ambient temperature, applied layer thickness and airflow.

## Film Thickness – Using Suitable Application



- By using suitable application 2 coats will provide 3.2-4.0 mils (80-100 µm) dry.

**UV Curing Equipment Use****Personal safety using UV curing equipment**

- Care must be taken to avoid exposing your body and other workers to direct UV light.
- General recommendations –
  - Read and understand the safety information that came with the UV curing equipment. It can be safely used according to the lamp manufacturers' guidelines and instructions.
  - Avoid unnecessary exposure to UV light.
  - Never use a HID UV lamp with a broken UV glass lens/filter.
  - Never look directly into UV light or point the UV lamp at someone else.
  - Always use the recommended full coverage clothing and shields.
  - Experimenting with other types of UV curing equipment than that suggested in this TDS is associated with severe health risks. Autosurfacers UV is only offered for use with UV-A.
- Eyes –
  - Avoid looking directly at a UV light source. Always wear eye protection rated to filter UV.
- Skin –
  - Make sure all skin is covered and not exposed to the UV light.

**Use of UV equipment in potentially explosive atmospheres (spray booths)**

- Regulations require that safety systems and procedures are in place that integrates spray booth safety systems. These integrated systems must ensure that sufficient purging or exhausting of fumes from the painting area is achieved prior to powering of the UV equipment.
- The use of equipment not EX certified should be evaluated for compliance with local regulations before using the equipment.

**Thermal safety**

HID (High Intensity Discharge) lamps produce heat that may cause a high temperature at the lamp lens/filter surface. Avoided the direct contact with potentially flammable materials, e.g., masking, towels, or spray booth paint filters.

**Maintenance of UV equipment**

- Regular inspection and cleaning of the UV lens/filter glass on the HID (high intensity discharge) lamps is necessary to ensure maximum UV output. The UV output will drop significantly with contaminated glass lenses.
- UV bulb replacement: the bulbs can contain hazardous elements and may need to be handled as chemical waste.

**Performance assessments**

- It is recommended to measure the lamp performance regularly and to use a measuring method that provides similar distance and position with each test.

Keep a log of the in-use hours and the measured UV irradiation level to judge lamp performance over time.

## UV Curing Equipment Use – Continued



### Bulb Life expectancy

- Bulb life, especially HID lamps, is influenced on usage. We offer these recommendations –
  - When HID-lamps are switched OFF, let them cool down sufficiently before switching ON again.
  - Most lamp manufacturers recommend a 5-10 minute cool down period. Refer to the manufacturer operation manual.
- When the unit is in use or still warm after use, place it carefully in a stable position thereby avoiding rough handling that may compromise the bulb.

## UV Curing Points of Attention



- Curing with sunlight is not recommended.
- For an even cure, the primed area must be constantly irradiated with light from the UV lamp.
- Follow the lamp manufacturer instructions.
- 400-watt HID UV lamps normally require 3 minutes of pre-heating before use.
- Curing speed is determined by several factors including:
  - Lamp intensity and UV spectra.
  - Distance between the lamp and the applied primer.
  - The thickness of the applied product.
  - Bulb service life and performance.
- If two spots are positioned close to each other and the footprint of the UV lamp is too small to cure both spots at once, make sure that the UV lamp does not irradiate one of the spots partially. Partial irradiation of one of the spots may cause wrinkling. There are two options -
  - 1) Cure the spots separately at close distance; making sure that only one spot is irradiated at a time.
  - 2) First move the UV lamp slowly over the surface once, then post cure the spots one by one according to the standard procedure.

## Drying / Curing Time



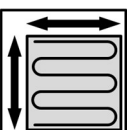
- Times are stated following recommended application method, film thickness and object temperature.
- Refer to the **AkzoNobel Approved UV Lights** guide in the **Additional Information** section below

## Film Thickness – Using Suitable Application



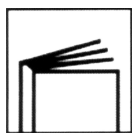
- By using suitable application, 2 coats will provide ≈3.2-4.0 mils (≈80-100 µm) dry.

## Theoretical Coverage



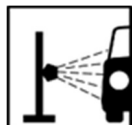
- With the recommended application the theoretical material usage is ≈842 ft<sup>2</sup>/gal (≈20.6m<sup>2</sup>/L) at a 1 mil thickness (25.4µm) and 100% transfer efficiency.
- Actual coverage is dependent on many factors which may include the shape of the object, surface smoothness, application technique, and other application variables.

## Recoating



- After properly curing and suitable surface preparation, Autosurfacers UV is recoatable with all Sikkens undercoats and topcoats.

## Additional Information



### Approved UV Curing Lights

#### Application Equipment

- Spray-gun: SATAjet 100 BF RP 1.1 fluid tip
- Film build before sanding: 4.0 mils (101.6 µm)

Equipment Manufacturer	Model	Lamp Type	Wattage	Voltage	Light to Panel Distance	8x8 Panel Flash Time	8x8 Panel Cure Time	Half Fender Flash Time	Half Fender Cure Time
Tesla Cure	R100	LED	100	110v, cordless	2-3"	8 sec.	30 sec.	15 sec	90 sec.
ChromaLectrix	TommyGunn PT-3	LED	N/A	110v, cordless	2-3"	12 sec.	30 sec.	30 sec.	90 sec.
Innovative Tools	Scangrip Nova-UV S	LED	N/A	110v, cordless	2-3"	30 sec.	90 sec.	45 sec.	3 min.
AMH Industries	Spectratek InstaCure UV	LED	55	110v, cordless	2-3"	7 sec.	30 sec.	15 sec.	60 sec.
AMH Industries	Spectratek 2400800UV	Std.	400x2	220v	4-6"	40 sec.	60 sec.	60 sec.	90 sec.
Jetlight	JUVC-5B	Std.	300w/in <sup>2</sup>	110v	4-6"	0 sec.*	10 sec.	0 sec.*	15 sec.
SPDI	2K Fastlane	Std.	2400	220v	4-6"	0 sec.*	5 sec.	0 sec.*	10 sec.
AMH Industries	Spectratek 3000 UV LED	LED	170	110v	12"	7 sec.	45 sec.	7 sec.	60 sec.
Symach	LedTronic	LED	N/A	110v	6-8"	8 sec.	30 sec.	15 sec.	60 sec.
Hedson	IRT UV SmartCure	LED	350 mW/cm <sup>2</sup>	110v, cordless	4-6"	8 sec.	30 sec.	15 sec.	60 sec.
Hedson	IRT SpotCure	LED	400	110v	4-6"	5 sec.	15 sec.	8 sec.	30 sec.
Scangrip	UV Gun	LED	340 mW/cm <sup>2</sup>	110v	4-6"	5 sec.	15 sec.	8 sec.	30 sec.
Dedoes	UV Flashlight	LED	30	110v, cordless	4-6"	8 sec.	30 sec.	15 sec.	45 sec.
Colad	9000	LED	>20mW/cm <sup>2</sup>	110v	4-6"	3 sec.	10 sec.	5 sec.	40 sec.

\* 0 seconds indicates back-to-back application. No flash between coats required.

## Cleaning of Equipment



- Clean equipment and dispose of waste following local and federal regulations. In compliant localities, use a Sikkens Cleaning Solvent LV. For national rule regions, a use Sikkens Cleaning Solvent.
- For efficient cleaning and less evaporated cleaning solvents, an enclosed automatic gun cleaning machine is suggested.

**VOC / Regulatory Information**



**Product**

**VOC Pounds per Gallon**

**VOC Grams per Liter**

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Autosurfacers UV Aerosol</li> <li>• Autosurfacers UV Light Grey</li> <li>• Autosurfacers UV Dark Grey</li> </ul> | <ul style="list-style-type: none"> <li>– 1.72</li> <li>– 1.72</li> <li>– 1.72</li> </ul> | <ul style="list-style-type: none"> <li>– 206</li> <li>– 206</li> <li>– 206</li> </ul> |
|---|--|---|
- Do not handle until the Safety Data Sheets have been read and understood. Regulations require that all employees be trained on 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.

**Product Storage**



- Store unopened, or products in use with approved closed containers and proper labeling. Store in moderate temperatures between 40°F - 95°F (5°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 70°F (21°C).
- Shelf life – 1 year.
- Reference the current price sheet for the most up-to-date shelf-life information.

**FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT**

**AkzoNobel Inc., North America**

**Address: 1845 Maxwell Street – Troy, MI USA**

**Telephone: 800.618.1010**

**FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT**

**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 Safety 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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