

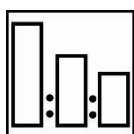
Autosurfacer Optima

FOR PROFESSIONAL USE ONLY

Description

Autosurfacer Optima is an extremely fast drying filler that can be used as a Sanding and Non Sanding version. At ambient temperature Autosurfacer Optima can be sanded within 30 - 60 minutes, depending on product mix used. With forced drying methods (IR / 60°C), the product can be sanded within 5 - 10 minutes after application without flash-off.

Sanding



| | |
|---|--|
| 3 | Autosurfacer Optima |
| 1 | Autosurfacer Optima Hardener Sanding |
| 1 | Autosurfacer Optima Reducer Sanding (Fast, Medium, Slow) |

Note: First add Hardener and stir thoroughly, then add Reducer and stir again.



Use Sikkens measuring stick

9 Grey

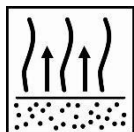


Spray gun set-up:
1.6 -1.8 mm

Application pressure:
1.7 – 2.0 bar (25-29 psi) at the air inlet
HVLP max 8-10 psi at the air cap



Light closed coat + 1-2* full coats
*More coats will affect drying time



1 – 3 mins after 1st coat,
1 – 2 full layers without flash-off in between



Air drying (Ambient) at 20°C:

30 mins.*

60 °C curing:

10 mins. No flash-off before curing needed

*Drying times can be influenced by: (object) temperature, layerthickness, Reducer choice.

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5 mins.
No flash-off before curing needed. (1-2 full coats)
High power (max 100 °C).



Block sanding: P400 (=exception to TDS S8.06.02)
Final sanding step: P500 (Preferably P600 in case of dark colors)
See TDS S8.06.02



Use suitable respiratory protection
Akzo Nobel Car Refinishes recommends the use of a fresh air supply respirator

Read complete TDS for detailed product information



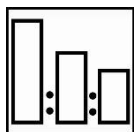
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Non Sanding



- 3 Autosurfacer Optima
- 1 Autosurfacer Optima Hardener Non Sanding
- 2 Autosurfacer Optima Reducer Non Sanding (Medium, Slow)

Note: First add Hardener and stir thoroughly, then add Reducer and stir again.



Use Sikkens measuring stick

15 Green

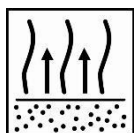


Spray gun set-up:
1.2-1.4 mm

Application pressure:
1.7-2.0 bar (25 – 29 psi) at the
spray gun air inlet
HVLP max 0.6 – 0.7 bar (8-10 psi)
at the air cap



1 flowing coat



Flash-off time:
15 minutes at 20 °C

Recoat within:
24 hours at 20 °C



Recoat with all Sikkens topcoats



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With forced drying methods (IR / 60°C), the product can be sanded within 5 - 10 minutes after application without flash-off.

Suitable substrates

| | |
|---|---|
| Steel | 1 |
| Aluminium | 1 |
| OEM electro coat | 2 |
| Existing finishes | |
| AutoPrep Pre-Treatment Wipes | |
| Polyester bodyfillers | |
| 1K All Plastic Primer | 3 |
| 2k Plastic Primer | 3 |
| Primer PO | 3 |
| Plastics: when factory pre-primed or primed with above mentioned plastic adhesion promoters | 3 |

1. Steel/ Aluminium:
Both Sanding and the Non Sanding* version of Autosurfacer Optima offers a very good corrosion resistance and therefor it can be applied directly to bare metal.
- 2.OEM / Electrocoat:
Autosurfacer Optima can be applied directly to thoroughly cleaned and degreased E-coat and sanded E-coat

Autosurfacer Optima Non sanding can be applied directly over sanded through spots.
*For large repairs which require extensive metal priming or panels that are sanded back to bare metal, pre-treatment with Autoprep Pretreatment Wipes or 1K Washprimer CF is recommended.
3. Always check if the type of plastic is suitable to be painted with a plastic primer/adhesion promotor
Plastic parts should be properly pretreated, sanded and cleaned
(For detailed surface preparation see TDS S8.06.03a).

Product and additives

| | |
|------------------|---|
| Products | Autosurfacer Optima White, Grey, Dark Grey |
| Hardeners | Autosurfacer Optima Hardener Sanding Autosurfacer Optima Hardener Non Sanding |
| Reducers | Autosurfacer Optima Reducer Sanding Fast, -Medium, -Slow Autosurfacer Optima Reducer Non Sanding Medium, -Slow |

Remark: Reducers are actually Activators

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Basic raw materials

Autosurfacer Optima : Acrylic and polyester resins
Autosurfacer Optima Hardeners: Polyisocyanate resin
Autosurfacer Optima Reducers: Organic solvents

Surface preparation



Remove contamination using an appropriate cleaner



Final dry sanding step of substrate: P320

For detailed surface preparation see TDS S8.06.02



Remove contamination using an appropriate cleaner
Where bodyfiller is exposed, avoid contact with water (e.g. waterborne degreaser).

Stir before use



Stir Autosurfacer Optima thoroughly before use

Note: Add Hardener and stir thoroughly, then add Reducer and stir again.
Mixing on scale is advised and more accurate

Mixing by weight



| SANDING | Primer | Hardener Sanding | Reducer Sanding |
|--------------|--------|------------------|-----------------|
| Total Volume | Weight | Weight | Weight |
| ± 150 ml | 200 g | 36 g | 31 g |
| ± 300 ml | 400 g | 72 g | 62 g |
| ± 450 ml | 600 g | 108 g | 93 g |

| NON SANDING | Primer | Hardener NS | Reducer NS |
|--------------|--------|-------------|------------|
| Total Volume | Weight | Weight | Weight |

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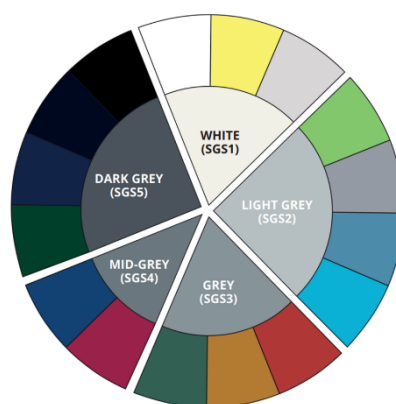
| | | | |
|----------|-------|-------|-------|
| ± 150 ml | 200 g | 38 g | 72 g |
| ± 300 ml | 400 g | 76 g | 144 g |
| ± 450 ml | 600 g | 114 g | 216 g |

Mixing Autosurfacer Optima Grey Shades

Autosurfacer Optima White, Grey and Dark grey can be intermixed to the Grey Shades range, according to the Quick-Mix table below

| Mix by weight | SGS1 | SGS2 | SGS3 | SGS4 | SGS5 |
|------------------|------|------|------|------|------|
| White (SGS1) | 100 | 80 | | | |
| Grey (SGS3) | | 20 | 100 | 63 | |
| Dark Grey (SGS5) | | | | 37 | 100 |

| Mix by volume | SGS1 | SGS2 | SGS3 | SGS4 | SGS5 |
|------------------|------|------|------|------|------|
| White (SGS1) | 1 | 4 | | | |
| Grey (SGS3) | | 1 | 1 | 5 | |
| Dark Grey (SGS5) | | | | 3 | 1 |



Alternatively Autosurfacer Optima White and Dark grey can be intermixed to the Grey Shades range, according to the Quick-Mix table below

| Mix by weight | SGS1 | SGS2 | SGS3 | SGS4 | SGS5 |
|------------------|------|------|------|------|------|
| White (SGS1) | 100 | 95 | 75 | 50 | |
| Dark Grey (SGS5) | | 5 | 25 | 50 | 100 |

*Stir thoroughly before adding Hardener.
Stir thoroughly once more before adding Reducer.*

Reducer choice

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| SANDING | 1 Panel (spot) | 1 - 2 Panels | ≥ 2 Panels |
|------------|----------------|----------------|----------------|
| 18 - 25 °C | FAST | FAST OR MEDIUM | MEDIUM |
| 22 - 28 °C | FAST OR MEDIUM | FAST OR MEDIUM | MEDIUM OR SLOW |
| 28 - 35 °C | MEDIUM OR SLOW | MEDIUM OR SLOW | SLOW |

| NON SANDING | 1 Panel | 1 - 2 Panels | ≥ 2 Panels |
|-------------|----------------|----------------|----------------|
| 18 - 25 °C | MEDIUM | MEDIUM | MEDIUM |
| 22 - 28 °C | MEDIUM OR SLOW | MEDIUM OR SLOW | MEDIUM OR SLOW |
| 28 - 35 °C | MEDIUM OR SLOW | MEDIUM OR SLOW | SLOW |

Plastic Substrates

Autosurfacer Optima Sanding and Non Sanding on plastic substrates:

All plastic parts, when pre-primed from factory or pre-coated with a suitable plastic adhesion promotor*.

*Check suitable substrate properties of adhesion promotor used

Plastic parts should be properly pretreated, sanded and cleaned (*For detailed surface preparation see TDS S8.06.03a*).

For improved stone chipping resistance 15% Elast-O-Actif (by weight) can be added
Add to the Autosurfacer Optima (stir) add hardener (stir) and add the Reducer and stir.

Spray gun set-up / application pressure



Spray gun

Gravity feed

Fluid tip-set-up

Sanding

1.6 - 1.8 mm*

*Larger opening will have effect on drying time.

Non Sanding

1.2 -1.4 mm

Application pressure

1.7-2.0 bar/ (25 – 29 psi)
at the spray gun air inlet
HVLP max 0.6-0.7 bar / 8-10 psi
at the air cap

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at the spray gun air inlet
HVLP max 0.6-0.7 bar / 8-10 psi
at the air cap

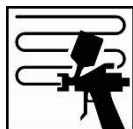
Pot-life

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| | |
|--|-----------------------|
| Autosurfacer Optima Reducer Sanding Fast | 30 mins. at 20°C |
| Autosurfacer Optima Reducer Sanding Medium | 30 mins. at 20°C |
| Autosurfacer Optima Reducer Sanding Slow | 30 mins. at 30°C |
| Autosurfacer Optima Non Sanding Medium | 35 - 45 mins. at 20°C |
| Autosurfacer Optima Non Sanding Slow | 60 mins. at 30°C |

Application



Sanding:

Spot application:

Apply one light closed coat flash-off until completely matt (1 – 3 mins) and apply the 2nd and 3rd coat within each preceding coat without flash-off.

Panel application:

Apply one light closed coat over the total sanded area. Flash-off until completely matt (1 – 3 mins) and apply 2 full* wet coats without flash-off between the layers.

*Any additional coat will have effect on the drying time

Note: when applied over OEM E-coat or a not sanded trough OEM substrate a first light coat is not required

Non Sanding

Apply 1 full flowing coat over the total area.

Drying time sanding



Time to sand is depending on a number of factors such as:

- Temperature
- Layerthickness
- Airflow
- Sandingpaper and - grid
- Sanding process: Machine (type), manually

Table is an indication of sanding time (based on 3M Purple P400)

| TEMPERATURE | REDUCER | TIME TO SAND | |
|-------------|---------|----------------------------|--------------------------------|
| | | ½ +1 layer (70 - 90 µm) | ½ + 2 layers (110 - 130 µm) |
| 18 - 25 °C | FAST | 20 - 30 mins. | 30 - 45 mins. |
| 22 - 28 °C | MEDIUM | 30 - 45 mins. | 45 - 60 mins. |
| 28 - 35 °C | SLOW | 45 - 60 mins | 60 mins. |

Autosurfacer Optima

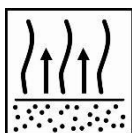
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Curing 60 °C: 10 mins. No flash-off before curing is needed.



5 minutes infra red curing up to 1 light + 2 full coats **no flash-off is needed**
The panel temperature should not exceed 100°C.
For additional information, see TDS S9.01.01

Flash-off time Non Sanding



Allow for a minimum flash-off time of 15 minutes at 20°C before topcoat application.
Apply topcoat within 24 hours at 20°C.

Should this maximum time be exceeded, abrade the surface with P500 dry or P1000 wet sanding paper.

Denibbing Non Sanding

For minor defects (e.g. dust) Autosurfacer Optima can be denibbed with either P800 dry or P1000 wet sanding paper. After a drying time of longer than 24 hours thorough sanding is necessary!

Final sanding



Block sanding: P400 (= *Exception to TDS S8.06.02*)
Final sanding step (machine) P500/ P600
For detailed surface preparation see TDS S8.06.02



Final sanding step P1000
For detailed surface preparation see TDS S8.06.02



Remove contamination using an appropriate cleaner

Recoatable with

Autowave
Autowave 2.0
Autobase Plus
Autocryl Plus
Autocryl Plus LV

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| Film thickness | | |
|----------------|----------------------|--------------|
| Sanding | per coat | 45 - 50 µm |
| | Light coat + 2 coats | 120 - 130 µm |
| Non Sanding | 1 coat | 25 - 30 µm |

| Theoretical coverage | |
|---|-----------------------------------|
| Sanding: Ready for use mixture at 1 µm dry film thickness: | m²/liter 500 |
| Non Sanding: Ready for use mixture at 1 µm dry film thickness: | 496 |

The practical material usage depends on many factors i.e. shape of the object, roughness of the surface, application techniques, pressure and application circumstances.



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Cleaning of equipment

Sikkens Solvent or Guncleaners

VOC

2004/42/IIb(c)(540)540

The EU limit value for this product (product category: IIb. c) in ready to use form is max. 540 g/liter of VOC. The VOC content of this product in ready to use form is max. 540 g/liter.

Product storage

Product shelf-life is determined when products are stored unopened at 20°C / 70°F.
Avoid extreme temperature fluctuation.

| | |
|---|-----------|
| Autosurfacer Optima White, Grey, Dark Grey | 12 months |
| Autosurfacer Optima Hardener Sanding | 12 months |
| Autosurfacer Optima Hardener Non Sanding | 12 months |
| Autosurfacer Optima Reducer Sanding Fast: | 12 months |
| Autosurfacer Optima Reducer Sanding Medium: | 12 months |
| Autosurfacer Optima Reducer Sanding Slow: | 12 months |
| Autosurfacer Optima Reducer Non Sanding Medium: | 12 months |
| Autosurfacer Optima Reducer Non Sanding Slow: | 12 months |

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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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