

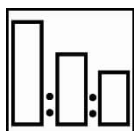
Autosurfacer Optima

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 the forced drying methods like IR and 60°C, the product can be sanded after exposing 5 minutes to Infra Red and after 10 minutes bake at 60°C, both curing methods can be done directly 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, than add reducer and stir again.



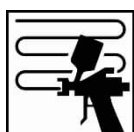
Use Sikkens measuring stick

9 Grey

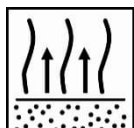


Spray gun set-up:
1.6 -1.8 mm

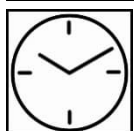
Application pressure:
1.7 – 2.0 bar at the air inlet
HVLP max 8-10 psi at the air cap



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 before cure needed
*Drying times can be influenced by: (object) temperature, layerthickness, reducer choice.



5 mins.
No flash before cure 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

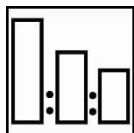
Autosurfacer Optima

FOR PROFESSIONAL USE ONLY

Description

Autosurfacer Optima is an extremely fast, ambient 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 combination used.

Non Sanding



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



Use Sikkens measuring stick

15 Green

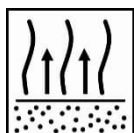


Spray gun set-up:
1.2-1.4 mm

Application pressure:
1.7-2.0 bar at the spray gun air inlet
HVLP max 0.6 – 0.7 bar at the air cap



1 flowing coat

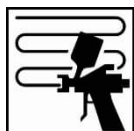


Flash-off time:

15 minutes at 20 °C

Recoat within:

24 hours at 20 °C



Recoatable with all Sikkens topcoats



Use suitable respiratory protection

Akzo Nobel Car Refinishes recommends to use of a fresh air supply respirator

Read complete TDS for detailed product information

Autosurfacer Optima

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Description

Autosurfacer Optima is an extremely fast PUR air- and IR drying filler and non sanding surfacer. At ambient temperature Autosurfacer Optima can be sanded within 30 - 60 minutes

Suitable substrates

Steel	1
Galvanized steel/zinc coated steel	1
Aluminium	1
OEM electro coat	2
Existing finishes	
Washprimer 1K CF	
Polyester bodys	
1K All Plastic Primer	3
Plastics: when factory pre-primed or primed with above mentioned plastic adhesion promotors	3

- 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.
*For large repairs which require extensive metal priming, apply Washprimer 1K CF.
- 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, apply Washprimer 1K CF.
- 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 Autosurfacer Optima Plastic Additive (HT)

Remark: Reducers are actually Activators

Autosurfacer Optima

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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, than 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
± 150 ml	200 g	38 g	72 g
± 300 ml	400 g	76 g	144 g
± 450 ml	600 g	114 g	216 g

Autosurfacer Optima

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Mixing Autosurfacer Optima grey shades

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

Mix by weight	SGS1	SGS2	SGS3	SGS4	SGS5		SGS2	SGS3	SGS4
White (SGS1)	100	80					95	75	50
Grey (SGS3)		20	100	63					
Dark Grey (SGS5)				37	100		5	25	50
Mix by volume	SGS1	SGS2	SGS3	SGS4	SGS5		SGS2	SGS3	SGS4
White (SGS1)	1	4							
Grey (SGS3)		1	1	5					
Dark Grey (SGS5)				3	1				

-Stir thoroughly before adding hardener.

-Stir thoroughly once more before adding reducer.

Reducer choice

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

Autosurfacer Optima

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Plastic Substrates

Sanding:

Spot application:

Apply one light closed coat over the total sanded area. Flash off until completely matt (1 – 3 mins) and apply the 2nd or a 3rd * coat within each preceding coat without flash off.

*Expect longer drying time with additional coats / higher film thickness



Panel application:

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

*Expect longer drying time with additional coats / higher film thickness

Autosurfacer Optima mixtures with Autosurfacer Optima Reducer Sanding can be applied on plastic parts pre-primed from factory or pre-coated with 1K All Plastic Primer (with the exception of pure PE and PP-E/P blends)

Non sanding

Apply 1 full wet coat over the total area and leave to flash off 15 minutes at 20°C before topcoat application.

Application on Plastic parts

Sanding:

-All virgin plastic parts, when pre-primed from factory or pre-coated with 1K All Plastic Primer or 2K Plastic primer can be painted. (with the exception of pure PE and PP-E/P blends)

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

Note: -For improved stone chipping resistance 15% Elast-o-Activ (by weight) can be added Add to the Autosurfacer Optima (stir) add hardener (stir) and add the thinner and stir



Non Sanding direct on bare plastics:

Autosurfacer Optima can be applied directly on bare plastic parts when Autosurfacer Optima Plastic Additive (HT) is added (**with the exception of pure PE and PP-E/P blends**).

All virgin plastic parts should be properly pre-treated, sanded and cleaned (*For detailed surface preparation see TDS S8.06.03a*).

Autosurfacer Optima Non Sanding mixtures with Plastic Additive (HT) can also be applied directly over bare steel, sanded OEM

Spray gun set-up / application pressure



Spray gun

Fluid tip-set-up

Application pressure

Gravity feed

Sanding

1.6 - 1.8 mm*

*Larger opening will have effect on drying time.

1.7-2.0 bar
at the spray gun air inlet
HVLP max 0.6-0.7 bar
at the air cap

Gravity feed

Non sanding

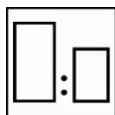
1.2 -1.4 mm

1.7-2.0 bar
at the spray gun air inlet
HVLP max 0.6-0.7 bar
at the air cap

Autosurfacer Optima

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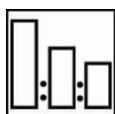
Under the hood mixing



Engine compartments can contain a matt or semi matt finish, so-called under the hood colors. Autosurfacer Optima can be used to imitate such colors. The addition of Autoclear LV Superior Medium / Autoclear 2.0 is needed to reach the required gloss level.



Mixture A:
70 Autosurfacer Optima
30 Autoclear LV Superior Medium / Autoclear 2.0

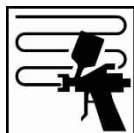


Underhood mixture A
3 Autosurfacer Optima Hardener non sanding
1 Autosurfacer Optima Reducer Non Sanding
2 Autosurfacer Optima Reducer Non Sanding

Pot-life

Autosurfacer Optima Reducer Sanding Fast	20 - 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
Autosurfacer Optima Plastic Additive	35 - 45 mins. at 20°C
Autosurfacer Optima Plastic Additive HT	35 - 45 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 through 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)

Autosurfacer Optima

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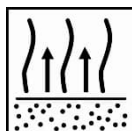
TEMPERATURE	REDUCER	TIME TO SAND	
		½ +1 layer	½ + 2 layers
		(70 - 90 µm)	(110 - 130 µm)
18 - 25 °C	FAST	20 - 30 mins.	30 - 45 mins.
22 - 28 °C	MEDIUM	30 - 45 mins.	45 - 60 mins.
28 - 35 °C	SLOW	45 - 60 mins	60 mins

Curing 60 °C: 10 mins. No flash before bake 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 wet-on-wet



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 wet-on-wet

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

Autosurfacer Optima

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Recoatable with

Autowave Optima
Autowave 2.0
Autocryl Plus LV

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:	m ² /liter
Non Sanding: Ready for use mixture at 1 µm dry film thickness:	500
	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.

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.

Avoid extreme temperature fluctuation.

o Product shelf life data see TDS S9.01.02

Autosurfacer Optima White, Grey, Dark Grey	12 month
Autosurfacer Optima Hardener Sanding	18 months
Autosurfacer Optima Hardener Non Sanding	18 months
Autosurfacer Optima Reducer Sanding Fast:	18 months
Autosurfacer Optima Reducer Sanding Medium:	18 months
Autosurfacer Optima Reducer Sanding Slow:	18 months
Autosurfacer Optima Reducer Non Sanding Medium:	18 months
Autosurfacer Optima Reducer Non Sanding Slow:	18 months
Autosurfacer Optima Plastic Additive (HT):	12 month

Autosurfacer Optima

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Recommended and best practices

Autosurfacer Optima is applied in **two to three layers** without flash off and is meant to be sanded in **30 to 60 minutes** depending on the temperature, the choice of the **reducer** but also the **layer thickness**

Sanding recommendations

Dust Extraction

Because of the high solid content a high amount of powder/ sanding dust is released during sanding. Therefore a good dust extraction helps to keep the sanding paper free from dust to make it work longer. A multihole sanding paper or a net abrasive is the preferred choice.

Edges and Corners

Always sand edges and corners manually before machine sanding the surface. This way potential sanding scratches from the manual sanding can be removed from the surface.

Sanding Process

Block sanding with P320 should always be followed by P320 on the excenter sanding machine to remove course sanding marks.

Use a guide coat to highlight the scratch pattern or irregularities before orbital sanding. Then follow with P400 – P500. For sensitive effect colors P600 grid can be used as a final sanding step.

Curing

Autosurfacer Optima cures quickly and achieves high surface hardness, ensuring robustness and durability. If sanding is to be performed **after more than 1 hour or the following day**, always use **Reducer Medium or Slow**, regardless of the repair size. This improves both flow and sandability.

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FOR PROFESSIONAL USE WITH SUITABLE HS&E 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 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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