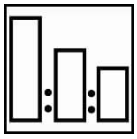
Autosurfacer Optima

FOR PROFESSIONAL USE ONLY

Description

Autosurfacer Optima is an extremely fast drying filler that can be used as a Sanding and Non Sanding version(s).
At ambient temperature Autosurfacer Optima can be sanded within 30 - 60 minutes, depending on the product mix used.
With the forced drying methods like IR and 60ºC curing, the product can be sanded after 5 minutes exposure to Infra-Red or after 10 minutes bake at 60ºC. Both curing methods can be performed 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, then add reducer and stir again.

Use Sikkens measuring stick

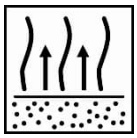
9 Grey

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

*Additional coats / layers will affect drying times



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

Air drying (Ambient) at 20ºC:	30 mins.*
60 ºC curing:	10 mins. No flash off before curing

*Drying times can be influenced by: (object) temperature, layer thickness or reducer choice.

5 mins.
No flash off necessary before curing.(1-2 full coats)
High power (max 100 ºC).

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

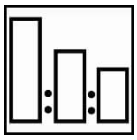
Autosurfacer Optima

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 the combination of additive(s) 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

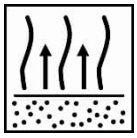
15 Green

Spray gun set-up:

1.2 - 1.4 mm

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

1 x flowing coat



Flash-off time:

15 minutes at 20 ºC (70°F)

Recoat within:

24 hours at 20 ºC (70 °F)

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	
AutoPrep Pre-Treatment Wipes	
Polyester bodyfiller	
1K All Plastic Primer	3
2k Plastic Primer	3
Primer PO	3
Plastics: when factory pre-primed or primed with above mentioned plastic adhesion promotors	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-treat with Autoprep Pretreatment Wipes, or apply 1K Primer CF

3. Always check if the type of plastic is suitable to be painted with a plastic primer / adhesion promotor
   Plastic parts should be properly pre-treated, 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

Basic raw materials

Autosurfacer Optima :	Acrylic and polyester resins
Autosurfacer Optima hardeners:	Polyisocyanate resin
Autosurfacer Optima reducers:	Organic solvents

Autosurfacer Optima

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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
± 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
White (SGS1)	100	80			
Grey (SGS3)		20	100	63	
Dark Grey (SGS5)				37	100

SGS2	SGS3	SGS4
95	75	50
5	25	50

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

SGS2	SGS3	SGS4

-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 ºC	FAST	FAST OR MEDIUM	MEDIUM
22 - 28 ºC	FAST OR MEDIUM	FAST OR MEDIUM	MEDIUM OR SLOW
28 - 35 ºC	MEDIUM OR SLOW	MEDIUM OR SLOW	SLOW

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

Autosurfacer Optima

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Application

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 or 2K 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 20ºC 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-Actif (by weight) can be added
Add to the Autosurfacer Optima (stir) add hardener (stir) and add the thinner and stir

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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
	Sanding	
Gravity feed	1.6 - 1.8 mm* *Larger opening will have effect on drying time.	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
	Non sanding	
Gravity feed	1.2 -1.4 mm	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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Pot-life

Autosurfacer Optima Reducer Sanding Fast	30 mins. at 20°C / 70°F
Autosurfacer Optima Reducer Sanding Medium	30 mins. at 20°C / 70°F
Autosurfacer Optima Reducer Sanding Slow	30 mins. at 30°C / 86°F
Autosurfacer Optima Non Sanding Medium	35 - 45 mins. at 20°C / 70°F
Autosurfacer Optima Non Sanding Slow	60 mins. at 30°C / 86°F
Autosurfacer Optima Plastic Additive	35 - 45 mins. at 20°C / 70°F
Autosurfacer Optima Plastic Additive HT	60 mins. at 30°C / 86°F

Application

Sanding:
Spot application:
Apply one light closed coat & flash off until completely matt
(1 – 3 mins) 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) Apply 2 full* wet coats without flash off between each layer.

*Any additional coat(s) will have effect on the drying time

Note: when applied over OEM E-coat or is not a 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
- Layer thickness
- Airflow
- Sanding paper and - grit
- 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 ºC	FAST	20 - 30 mins.	30 - 45 mins.
22 - 28 ºC	MEDIUM	30 - 45 mins.	45 - 60 mins.
28 - 35 ºC	SLOW	45 - 60 mins	60 mins.

Curing 60 ºC: 10 mins. No flash before bake is necessary.

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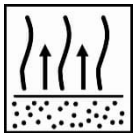
IR Drying time sanding

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

Recoatable with

Autowave 2.0
Autowave MM Optima
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

	m²/liter
Sanding: Ready for use mixture at 1 µm dry film thickness:	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.

- *Product shelf-life data see TDS S9.01.02*

Autosurfacer Optima White, Grey, Dark Grey	12 months
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 months

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