



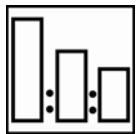
sikkens COLORBUILD PLUS™

FOR PROFESSIONAL USE ONLY

Description

Colorbuild Plus is a fast drying undercoat system consisting of six colored primers which, when mixed in proper combination with each other, achieving colors closely resembling the most popular topcoat colors. Depending on the components and the mixing ratio utilized, Colorbuild Plus can be applied direct to metal when repairing small areas for car repair and can be used as either a primer surfacer or wet-on-wet primer sealer.

Sanding Surfacer



- 3 Colorbuild Plus
- 1 Colorbuild Plus Surfacer Hardener
- 1 Colorbuild Plus Surfacer Activator Spot & Panel / Surfacer Activator Medium



Use Sikkens measuring stick # 9 (Grey)



Gravity spray gun set-up:
1.7 - 2.0 mm

Application pressure:
29 psi at the air inlet

- o Check gun manufacturer specification



2 - 3 x 1 coat



Between coats:
4 - 6 minutes at 70°F (20°C)

Before curing:
5-10 minutes at 70°F (20°C)



30 minutes at 140°F (60°C)
90 minutes at 70°F (20°C)



5 minute low power
5 minute high power



Final sanding step; #P500 to #P600 Sikkens topcoats
Final sanding step; #P400 to #P500 when applying Sikkens sealers



Recoatable with all Sikkens topcoats



Use suitable respiratory protection
Akzo Nobel Car Refinishes recommends to use fresh air supply respirator

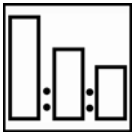


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Wet On Wet



- 100 -Colorbuild Plus.
- 25 -Colorbuild Plus Primer Sealer Hardener or Sealer Hardener Slow.
- 35 -Colorbuild Plus Sealer Reducer / Sealer Reducer Slow.



Use Sikkens measuring stick # 5 (Orange)



Spray gun set-up:
1.4 -1.5 mm

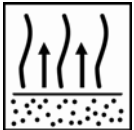
Application pressure:

29 psi at the air inlet

- o Check gun manufacturer specification



1 x 1 coat



Recoat, Wet- On- Wet time: Recoat within:

15 minutes at 70°F (20°C)

4 hrs. at 70°F (20°C)



Recoatable with all Sikkens topcoats



Use suitable respiratory protection

Akzo Nobel Car Refinishes recommends to use fresh air supply respirator

Read complete TDS for detailed product information



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Suitable substrates

- Existing finishes
 - Direct to Steel
 - Direct to galvaneal, OEM treatment
 - Direct to Aluminum
 - o For most collision repair applications, Colorbuild Plus can be used as a direct to metal primer.
 - o Although Colorbuild Plus will provide adequate adhesion on bare metal, repairs which require extensive metal priming such as whole panel and panels that have had the existing paint system removed, Colorbuild Plus should be applied over Washprimer 1K CF or Washprimer EM CF. Allow a 15 minutes flash-off at 70°F (20°C) after Washprimer 1K CF and a 30 minutes flash-off at 70°F (20°C) after Washprimer EM CF application.
 - OEM Ecoat
 - Washprimer EMCF and Washprimer 1K CF
 - Polyester laminates (fiberglass gelcoat)
 - Polyester bodyfillers – Polysurfacer
- Under no circumstance should Colorbuild Plus be applied if the gelcoat has been broken or sanded through on polyester laminates. recommended is the use of Polysurfacer.*

Product and additives

Product	Colorbuild Plus; White – Black – Red – Blue – Green – Yellow
Hardeners	<ul style="list-style-type: none"> -Colorbuild Plus Surfacer Hardener: One Hardener for the Surfacer assembly -Colorbuild Plus Sealer Hardener; a standard hardener for application to small to medium size repairs, temperatures between 65°F (18°C) and 90°F (32°C) -Colorbuild Plus Sealer Hardener Slow; to be used in combination with Colorbuild Sealer Reducer Slow. When application temperatures are above 90°F (32°C)
Activators / Reducers	<ul style="list-style-type: none"> -Colorbuild Plus Surfacer Activator Medium; a standard activator to be used for application on large repairs, temperatures of 75°F (24°C) and above -Colorbuild Plus Surfacer Activator Spot & Panel for application of the surfacer to small and medium size repairs, temperature between 65°F (18°C) and 85°F (29°C) <ul style="list-style-type: none"> o must be used only for Colorbuild Plus Surfacer -Colorbuild Plus Sealer Reducer; a standard reducer for small to medium size repairs, temperatures between 65°F (18°C) and 90°F (32°C) -Colorbuild Plus Sealer Reducer Slow; normally used in combination with Colorbuild Plus Sealer Hardener Slow. May also be used in combination with Colorbuild Plus Sealer Hardener, at temperatures between 65°F (18°C) and 90°F (32°C) <ul style="list-style-type: none"> o must be used only for Colorbuild Plus Wet-on-Wet Sealer
Additives	<ul style="list-style-type: none"> -Elast-O-Actif; additive to increase the flexibility level of the surfacer and sealer systems, for use on flexible plastic parts -All Plastic Adhesion Promoter; a special reducer to increase the flexibility of Colorbuild Plus when used as a wet-on-wet primer sealer system. <ul style="list-style-type: none"> o To be used in place of Colorbuild Plus Sealer Reducer. o Use only with Colorbuild Plus Sealer Hardener Slow.

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Additives Continued

–Sikkens SuperTop; a special accelerator. For use when spraying small areas and when faster curing is required. Add a maximum of ½ oz. Super Top to 1 liter of Ready To Spray Colorbuild Plus mixed as a surfacer.

- Do not use Super Top when mixing and spraying Colorbuild Plus as a sealer.

Do not add more than the stated amount, as this will reduce the qualities of the primer surfacer.

–Colorbuild Plus Under Hood Additive; an additive to use with Colorbuild Plus when application is required for under hood colors. This additive will increase the gloss level to approximately 40 gloss units (GU at 60° viewing angle) and mar and stain resistance for colors that are applied under hood.

Basic raw materials

Colorbuild Plus:	Acrylic and polyester resins
Colorbuild Plus Hardeners:	Polyisocyanate resin
Colorbuild Plus Activators:	Activated solvents

Surface preparation



M600 / Autoclean, Anti-Static Surface Cleaners

- If necessary, pre-wash the surface with warm water and soap, rinse sufficiently with clean water.



Sanding Surfacer; final dry sanding steps; #P240 to #P320

- Sikkens polyester bodyfillers and Polysurfacer; finish with;#P180 to #P220 grit paper dry.

Wet on Wet Sealer; final dry sanding step #P320 to #P400

- Feather edge sanding in case of repair area, finish with #P400
- Colorbuild Plus can be applied directly to non-sanded, rigid OEM Ecoated parts that have been thoroughly cleaned and degreased.



M600, Autoclean, Anti-Static Surface Cleaners

- In case of polyester bodyfiller use, avoid contact with water (e.g. waterborne degreaser)

Stir before use



Stir each Colorbuild Plus color thoroughly before use.

- After adding Colorbuild Plus Surfacer or Sealer Hardener, stir thoroughly prior to adding Colorbuild Plus Surfacer Activator or Sealer Reducer

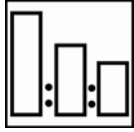
Mixing Colorbuild Plus colors

With the exception of the Black and White, Colorbuild Plus colors **must always** be intermixed according to the mixing formulas to achieve the desired color, layer thickness and coverage prior to the addition of hardener and activator or reducer.

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Mixing



Colorbuild Plus sanding surfacer

Mixing ratio 3 : 1 : 1

- 3 parts; Colorbuild Plus
- 1 parts; Colorbuild Plus Surfacer Hardener
- 1 parts; Colorbuild Plus Surfacer Activator # 9 (grey)

For easy and accurate measuring use the correct Sikkens measuring stick #, listed above.

Colorbuild Plus Wet - on - Wet sealer

Mixing ratio 100 : 25 : 35

- 100 parts; Colorbuild Plus
- 25 parts; Colorbuild Plus Sealer Hardener
- 35 parts; Colorbuild Plus Sealer Reducer # 5 (Orange)

Under hood colors

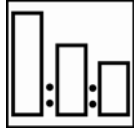
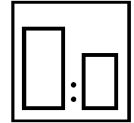
Under the hood and in the engine compartment of some cars a matt finish is present. More and more cars utilize this finish, so-called under hood colors. Colorbuild Plus can be used to imitate such colors with the addition of Colorbuild Plus Under Hood Additive to reach the required semi-gloss level (+ - 40GU at 60° angle).

Make a mixture of:

100 parts by volume of Colorbuild Plus color then add 60 parts by volume Under Hood Additive.

- (measuring stick #5 Orange) Use the left column for Colorbuild Plus and the same number in the far right column for Under Hood Additive

This mixture must be thoroughly stirred before further mixing with hardener and activator.



- 100 parts Mixture of Colorbuild Plus under hood color
- 25 parts Colorbuild Plus **Primer Sealer Hardener**
- 35 parts Colorbuild Plus **Surfacer Activator Spot & Panel or Surfacer Activator Medium**
 - Use the Sikkens measuring stick #5 (Orange)

Application:

Over thoroughly cleaned or sanded OEM Ecoat;
Apply one to two single coats.

- This under hood mixture must not be applied directly to bare aluminum



Dry to handle time:

15 minutes at 70°F (20°C) (for one single coat)

10 minutes at 80°F (27°C) (for one single coat)

- Drying times relate to recommended application and object temperature





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Flexible parts

Colorbuild Plus, sanding surfacer

Mix 3 parts Colorbuild Plus with 1 part Autocryl Elast-O-Actif (measuring stick #9), stir thoroughly. Then mix this mixture 3:1:1 with the Colorbuild Plus Surfacer Hardener and Surfacer Activator. Stir the Colorbuild Plus and the hardener thoroughly before adding Colorbuild Plus Surfacer Activator

Colorbuild Plus, wet on wet sealer

Mix the Colorbuild Plus with Sikkens All Plastic Adhesion Promoter:

Notes:

- When using All Plastic Adhesion Promoter, this should only be in combination with Colorbuild Plus Primer Sealer Hardener Slow.
- Recoatability; 15 minutes at 70°F (20°C). After a dry time of 1 1/2 hours at 80°F (27°C) sanding is necessary, This may be done after 10 hours at 80°F (27°C) or 45 minutes at 140°F (60°C)

Flexible Parts: - Normal cladding and bumper covers

- Use the normal 100:25:35 mixing ratio, in place of the 35 parts Colorbuild Plus Sealer Reducer. Use 35 parts by volume of Sikkens All Plastic Adhesion Promoter. (measuring stick #5)

With Colorbuild Plus primer sealer, using All Plastic Adhesion Promoter, there is no need for flex agent in Colorbuild Primer Sealer or plastic identification before the application of Colorbuild Primer Sealer.

Alternate mixing:

Colorbuild Plus, wet on wet. Mixing with Autocryl Elast-O-Actif

As a flexible primer sealer, Colorbuild Plus may also be mixed with Autocryl Elast-O-Actif:

Mix 3 parts Colorbuild Plus with 1 part Autocryl Elast-O-Actif (measuring stick #9), stir thoroughly. Then to this mixture, using the normal 100:25:35 mixing ratio, add Colorbuild Plus Primer Sealer Hardener and Colorbuild Plus Primer Sealer Reducer. (measuring stick #5)

If this mixture is being used, Primer PO or Plastoflex Primer should be applied on any exposed untreated plastic before applying Colorbuild Plus. Please see the TDS of Primer PO or Plastoflex Primer for the use of these products.

Viscosity



Colorbuild Plus (Sanding Surfacer mixing)
14–17 seconds DIN cup #4 at 70°F (20°C).

Colorbuild Plus (Wet- On- Wet mixing)
15 – 17 seconds DIN cup #4 at 70°F (20°C)

Spray gun set-up / application pressure



Spray gun
Sanding
Gravity
Suction feed

Fluid tip – set-up
Sanding
1.7-2.0 mm
1.8-2.2 mm

Application pressure

29 psi at the spray gun air inlet
HVLP max 10 psi at the air cap

Wet on wet
Gravity
Suction feed

Wet on wet
1.4-1.5 mm
1.6-1.9 mm

Check gun manufacturer specification

Pot-life

Sanding Surfacer mixture
50 to 55 minutes at 70°F (20°C)

Wet - on - Wet Sealer mixture
35 to 40 minutes at 70°F (20°C)

- When adding ½ oz. Super Top to 1 liter sprayable material; 30 minutes at 70°F (20°C).

- With Colorbuild Plus Sealer Hardener Slow in combination with Colorbuild Plus Sealer Reducer Slow ; 3 hours at 70°F (20°C) 1 hour at 100°F (37°C)



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Application



Colorbuild Plus, sanding surfacer application:

For use on repair (polyester bodyfiller) or sanded areas apply one coat over the repair, and then apply the 2nd and 3rd coat.

Where a full panel application is required apply 2-3 coats over the total panel

- o Flash off between the coats until the surface becomes totally matt, this will depend on ambient temperature, applied layer thickness and airflow.
- o **Alternate application;** Colorbuild Plus mixed as a surfacer (3:1:1) may be used wet-on-wet when edging in parts. In this case, apply one coat of Colorbuild Plus. Apply topcoat after 15 minutes to a maximum of 45 minutes at 70°F (20°C).
After a drying time of longer than 90 minutes, thorough sanding is necessary for adhesion of top coat

Colorbuild Plus, Wet-On-Wet application:

Apply 1 thin but flowing coat over the desired area.

- o Over any sand through areas, first apply a thin coat to make all the substrate layers uniform before continuing with the normal coat.

Film thickness

With recommended application;

Sanding;
6.6 - 7.5 mils (165 -195 µm)

Wet on wet;
1 - 1.2 mils (25 - 30µm)

mixing ratio 3:1:1

mixing ratio 100:25:35

Drying time; sanding surfacer



90 minutes at 70°F (20°C)

30 minutes at 140°F (60°C)

- o Drying times relate to recommended application and object temperature



Distance between short wave IR unit and object. 20- 27inches (50-70 cm)

Allow 3 to 5 minutes flash off before Infra red curing

Cure 5 minutes low power setting followed by 5 minutes high power setting.

Drying time; sanding surfacer when Super Top is used



45 minutes at 70°F (20°C)

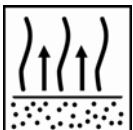
12 minutes at 140°F (60°C)



Allow 3 to 5 minutes flash off before Infra red curing

Cure 3 to 5 minutes high power setting only.

Flash off time; Wet - on - Wet sealer



Prior to the topcoat application allow a minimum of 15 minutes flash off time up to a maximum of 4 hours at 70°F (20°C).

Should this maximum time be exceeded, Colorbuild wet on wet should be sanded prior to topcoat application, either with #P500 to #P600 dry or #P800 wet sanding paper.



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Denibbing Wet - on - Wet Sealer



For minor defects (e.g. dust) Colorbuild Plus can be denibbed with #P500 dry or #P800 wet.
After 20 minutes at 70°F (20°C)

After a drying time of longer than 4 hours thorough sanding is necessary!

- If sanding is necessary, this may be done after 12 hours at 70°F (20°C) or 45 minutes at 140°F (60°C)

Final sanding, Surfacer



Final dry sanding step #P500 to #P600 before application of Sikkens topcoats

Initial sanding steps may be executed with a coarser sanding grit; #P320 to #P400



Final wet sanding step #P800 before application of Sikkens topcoats

Initial sanding steps may be executed with a coarser sanding grit #P600

Recoatable with

All Sikkens sealers and topcoats.

Material usage

With recommended application, the theoretical material usage is approximately;

- Colorbuild Plus sanding surfacer: 96 sq. ft./liter (9 m²/l) per coat for unmixed paint
- Colorbuild Plus wet on wet sealer: 150 sq. ft./liter (14 m²/l) per coat for unmixed paint
- *The practical material usage depends on many factors i.e. shape of the object, roughness of the surface, application techniques, pressure, method and application circumstances.*

Cleaning of equipment

Sikkens Cleaning Solvent 790 or lacquer thinner

VOC

Surfacer:	(3:1:1 Ready to spray) Colorbuild Plus:	4.6 lb/gal (550 g/liter)
Sealer:	(100:25:35 Ready to spray) Colorbuild Plus:	4.5 lb/gal (540 g/liter)
Under hood additive:	100:60 then 100:25:35 Ready to spray:	4.54 lb/gal (545 g/liter)



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Product storage

Store products unopened, and used products with closed lids preferably between 50°F-95°F (10°C-35°C)
Avoid too much temperature fluctuation, optimal storage temperature approximately 70°F (20°C)

Colorbuild Plus:	1 year	Colorbuild Plus Surfacer Activator:	1 year
Colorbuild Plus Surfacer Hardener:	6 months	Colorbuild Plus Sealer Reducer:	1 year
Colorbuild Plus Sealer Hardener:	6 months	Under hood additive:	1 year

Akzo Nobel Car Refinishes Inc. North America

Address: 5555 Spalding Drive, Norcross. GA 30092 USA

Tel: 770-662-8464

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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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