

## FOR PROFESSIONAL USE ONLY

## Description

Colorbuild Plus consists of six colored primers which, when mixed in proper combination with each other, achieve colors closely resembling the most popular topcoat colors. Depending on the mixing ratio utilized, Colorbuild Plus can be used as either a sanding surfacer or non sanding / wet on wet primer surfacer.

## Sanding



3 Colorbuild Plus

1 Colorbuild Plus Hardener Sanding

+10% Colorbuild Plus Activator Sanding



Use Sikkens measuring stick

35 Orange



Spray gun set-up: 1.5-1.8 mm

Application pressure:
1.7-2.2 bar at the air inlet
HVLP max 0.6-0.7 bar at the air cap



2-3 x 1 coat



Between coats:

Before curing:

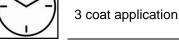
4-6 minutes at 20°C

4 - 6 minutes at 20°C



1 ½ hours at 20°C

30 minutes at 60°C



Final sanding step: P500

See TDS S8.06.01



Recoatable with all Sikkens topcoats



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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## Wet on wet



100 Colorbuild Plus

25 Colorbuild Plus Hardener Non Sanding

35 Colorbuild Plus Activator Non Sanding



Use Sikkens measuring stick

**5** Orange



Spray gun set-up: 1.3-1.4 mm

Application pressure: 1.7-2.2 bar at the air inlet HVLP max 0.6-0.7 bar at the air cap



1 coat



Flash-off time:

Recoat within:

15 minutes at 20°C

24 hours at 20°C



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### Suitable substrates

Existing finishes Glass Reinforced Polyester laminates (GRP)

SteelPolyester bodyfillersAluminiumSikkens PolysurfacerGalvanized steelPrimer Surfacer EPIIOEM electro coatSikkens Washprimers

AutoPrep Pre-Treatment Wipes (see TDS A2.06.01)

	Colorbuild Plus Sanding / non sanding	Colorbuild non sanding in combination with Plastic Additive
Direct to steel	Yes 1)	Yes 1)
Direct to aluminum	Yes 1)	Yes 1)
Direct to galvanized steel	Yes 1)	Yes 1)
Direct to new plastic parts	X	Yes 2)
Direct to unsanded OEM electrocoat	Yes 3)	Yes 3)
Sanded existing finishes	Yes 3)	Yes 3)

- 1) Colorbuild Plus will provide adequate adhesion if applied directly to all metals. For systems which should meet the highest standards, apply Colorbuild Plus over Sikkens Washprimer.
- Only in combination with Colorbuild Plus Plastic Additive (HT) Only when plastic parts are properly pretreated, sanded and cleaned On all plastics, with the exception of pure PP and pure PE When mixed with Colorbuild Plus Plastic Additive (HT) no plasticizer is needed
- 3) Surfaces should be thoroughly cleaned and degreased

### **Product and additives**

Products Colorbuild Plus; White-Black-Red-Blue-Green-Yellow

Hardeners Colorbuild Plus Hardener Sanding

Colorbuild Plus Hardener Non Sanding

Activator Colorbuild Plus Activator Sanding Extra Fast; spot repairs and application at lower temperatures.

Colorbuild Plus Activator Sanding Fast; spot and panel repairs.

Colorbuild Plus Activator Sanding Slow; standard application on larger surfaces and at higher temperatures

Colorbuild Plus Activator Non Sanding; for non sanding / wet-on-wet application.

Additives Colorbuild Plus Plastic Additive (HT): for non sanding application on plastics. See \$8.06.03

Autocryl Structure Paste Fine: additive to create different surface textures, See TDS 6.57

## Basic raw materials

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





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### Surface preparation



Surface cleaning; remove any surface contamination prior to sanding using an appropriate surface cleaner.

Pre-clean the surface with warm water and detergent, rinse sufficiently with clean water.



Sanding; final dry sanding steps; P180 - P280

Direct applicable on non-sanded, thoroughly cleaned and degreased rigid OEM electro-coated parts.

Sikkens polyester bodyfillers and Polysurfacer; finished with; P180 - P280

Featheredge sanding for spot repair, finish outer area with P400

For detailed surface preparation see TDS S8.06.02



Surface cleaning; remove any surface contamination prior to Colorbuild application using appropriate surface cleaner. Where bodyfiller is exposed, avoid contact with water (e.g. waterborne degreaser).

### Stir before use



Stir each Colorbuild Plus color thoroughly before mixing

## 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, activator or thinner. Colorbuild Plus Black and White can be mixed in each mixing ratio, see Quick-Mix table below

Black - White		
0 : 100	White	
1:5	Light grey	
1:2	Medium light grey	
1:1	Medium grey	
2:1	Medium dark grey	
5 : 1	Dark grey	
100 : 0	Black	

Colorbuild Plus mixtures must be stirred thoroughly before adding Colorbuild Plus Hardener. Stir thoroughly once more before adding additional reducer (if required).

## Under the hood colors



In the engine compartment of some cars a matt finish is present. More and more car brands utilize this finish, so-called under the hood colors. Colorbuild Plus colors can be used to imitate such colors by the addition of Autoclear LV Superior Fast to reach required semi-gloss level.

70	Colorbuild Plus color	100	Under the hood Colorbuild Plus mixture
30	Autoclear LV Superior Fast / Autoclear 2.0	25	Colorbuild Plus Hardener Non Sanding
		35	Colorbuild Plus Activator Non Sanding



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### Mixing



## Sanding:

3 Colorbuild Plus1 Colorbuild Plus Hardener Sanding

10% Colorbuild Plus Activator Sanding

### Non sanding (wet-on-wet):

100 Colorbuild Plus

25 Colorbuild Plus Hardener Non Sanding35 Colorbuild Plus Activator Non Sanding

Plastic application

100 Colorbuild Plus

25 Colorbuild Plus Hardener Non Sanding35 Colorbuild Plus Plastic Additive (HT)

Colorbuild Plus under the hood and

Colorbuild Plus with Plastic Additive can be

Note: used as regular sealers for metal. When aluminium and galvanized steel is

used, it should be preceded by Washprimer

1K CF

## Flexible parts

<u>Sanding:</u> Once elasticized to the required level, Colorbuild Plus can be applied on plastic parts. All flexible plastic parts should be pre-coated with a suitable plastic primer (in the case of unprimed plastic), or OEM finish. See TDS.S8.06.03.

Non sanding: Colorbuild Plus with Plastic Additive (HT) can be applied as non-sanding primer directly on all plastics with the exception of pure PE. See TDS.S8.06.03.

## Spray gun set-up / application pressure



Spray gun	Fluid tip-set-up	Application pressure
Gravity feed	Sanding 1.5-1.8 mm	1.7-2.2 bar at the spray gun air inlet HVLP max 0.6-0.7 bar at the air cap
Gravity feed	Wet on wet 1.3-1.4 mm	1.7-2.2 bar at the spray gun air inlet HVLP max 0.6-0.7 bar at the air cap

For maximum build use large fluid tip and lower the application pressure.

### Pot-life

Colorbuild Plus mixed with Activator Sanding Extra Fast and Fast Colorbuild Plus mixed with Activator Sanding Slow Colorbuild Plus Non Sanding (wet-on-wet):

35 minutes at 20°C 1 hour at 20°C 1 hour at 20°C

## Application



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**Sanding**; Apply one coat over the total sanded area. Next apply the 2<sup>nd</sup> and 3<sup>rd</sup> coat within each preceding coat. Where a full panel application is required apply 2-3 coats over the total panel dependent on the required film build.

Allow each coat to flash-off naturally until the surface is completely matt; this also supports to achieve higher film build. Do not force-dry by air support. Flash-off between the coats is dependent on ambient temperature, applied layer thickness and airflow. For maximum build use large fluid tip and lower the application pressure.

#### Wet on wet (non sanding/surfacer)

Apply 1 full wet coat over the total area

### Drying time sanding



11/2 hours at 20°C

30 minutes at 60°C

Drying times relate to recommended application (3 coats) and object temperature



Allow 5 minutes flash-off prior to infra red curing The panel must not reach a temperature above 100°C while curing. For additional infra red drying 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 prior to 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) Colorbuild Plus can be denibbed with either P500 dry or P1000 wet sanding paper. After a drying time of longer than 24 hours thorough sanding is necessary!

### Final sanding



Final sanding step P500

- Initial sanding steps may be executed with a coarser sanding grit; P360 P400
- o Respect a maximum 100 sanding grit step difference or less throughout the sanding procedure.
- For detailed surface preparation see TDS S8.06.02



Final sanding step P1000

- Initial sanding steps may be executed with a coarser sanding grit P600 P800
- o Respect a maximum 200 sanding grit step difference or less throughout the sanding procedure.
- For detailed surface preparation see TDS S8.06.02



Surface cleaning; remove any surface contamination prior to the application of the topcoat using an appropriate surface cleaner.

### Recoatable with

All Sikkens topcoats





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### Film thickness

Sanding Per coat : 40-45 μm 3 coats: 120-130 μm

Non sanding /wet-on-wet (1 coat); 25-30 µm

## Theoretical coverage

By using the recommended application, the theoretical material usage is:

- Sanding: Ready for use mixture at 1 μm dry film thickness: 400 m²/liter
- Wet-on-wet: Ready for use mixture at 1 μm dry film thickness: 389 m²/liter

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 Solvents 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

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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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