

Colorbuild Plus 250 – as a sealer

Colorbuild Plus 250 is a versatile VOC compliant undercoat system that consists of six colored primers. When mixed together in proper combinations, primer surfacer or primer sealers closely resembling the most popular OEM under hood colors can be achieved. For small repairs, Colorbuild Plus 250 can be used as a direct-to-steel primer.



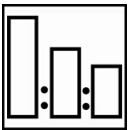
Safety Considerations

- Use suitable personal protection
- When exposed to paint or solvents AkzoNobel recommends the use of a fresh air supply respirator



Surface Preparation

- Existing finishes
 - #P320 – #P400, dry
 - Properly cleaned (no sanding required for adhesion)
- OEM e-coat
 - #P80 then #P120, dry
- Bare steel



BY VOLUME
STICK #9

Mix

- | | | |
|----------|------------------|--|
| 3 | By Volume | Parts Colorbuild Plus 250 |
| 1 | | Parts Colorbuild Plus 250 Hardener or Hardener Slow |
| 1 | | Parts Colorbuild Plus 250 Activator Slow or Extra Slow |



Spray-Gun Set-Up

- 1.3 – 1.5mm HVLP Gravity
- 1.3 – 1.5mm Compliant

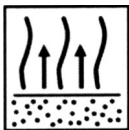
Application Air Pressure

- HVLP – 10 psi (<0.7 bar) at cap, maximum
- Consult manufacturer specifications



Application

- 1 x 1 Coats (1 single wet coat)



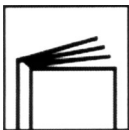
Flash at 70°F (21°C) Before Topcoat

- 15 minutes or until completely matte

Maximum Time to Recoat at 70°F (21°C)

- 1.5 – 2.5 hours

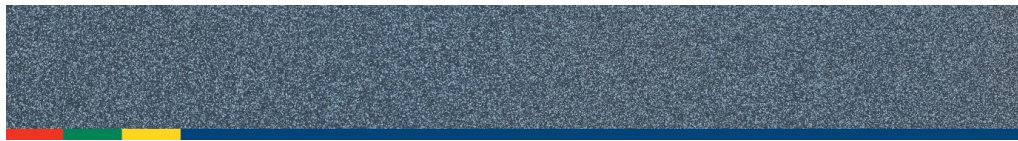
✓ Dependent on hardener and activator selection



As a Wet-on-Wet Primer Sealer, recoatable with:

- Sikkens basecoats
- Sikkens single-stage topcoats

Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information



Colorbuild Plus 250 – as a surfacer

Colorbuild Plus 250 is a versatile VOC compliant undercoat system that consists of six colored primers. When mixed together in proper combinations, primer surfacer or primer sealers closely resembling the most popular OEM under hood colors can be achieved. For small repairs, Colorbuild Plus 250 can be used as a direct-to-steel primer.



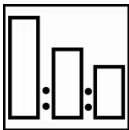
Safety Considerations

- Use suitable personal protection
- When exposed to paint or solvents, AkzoNobel recommends the use of a fresh air supply respirator



Surface Preparation

- Existing finishes – #P220 – #P360, dry
- Body filler – #P180 – #P220, dry
- Bare steel – #P80 then #P120, dry



BY VOLUME
STICK #5

Mix	By Volume
4	Parts Colorbuild Plus 250
1	Part Colorbuild Plus 250 Hardener
1	Part Colorbuild Plus 250 Activator



Spray-Gun Set-Up

- 1.7 – 1.9mm HVLP Gravity
- 1.7 – 1.9mm Compliant

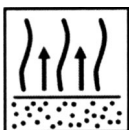
Application Air Pressure

- HVLP – 10 psi (<0.7 bar) at cap maximum
- Consult manufacturer specifications



Application

- 2 – 3 x 1 Coats (2 to 3 single wet coats)



Flash Between Coats at 70°F (21°C)

- 5 – 10 minutes

Flash at 70°F (21°C) Before Force Drying

- 5 – 10 minutes



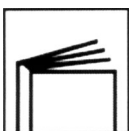
Dry to Sand – 3 Coats

- 3 hours at 70°F (21°C)
- 30 minutes at 140°F (60°C)

Dry to Sand - Infrared

- Low power – 5 minutes
- THEN -
- Full power – 10 minutes

✓ *Dependent on film weight and airflow*



As a sanded primer surfacer, recoatable with:

- Sikkens primer surfacers and sealers
- Sikkens basecoats
- Sikkens single-stage topcoats

Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information.



Description

Colorbuild Plus 250 is a versatile VOC compliant undercoat system that consists of six colored primers. When mixed together in proper combinations, primer surfacer or primer sealers closely resembling the most popular OEM underhood colors can be achieved. For small repairs, Colorbuild Plus 250 can be used as a direct-to-steel primer.

Suitable Substrates

- Existing finishes
 - Steel
 - Aluminum (pretreated with Autoprep pretreat materials)
 - Galvanized steel
 - OEM e-coat (electro-coat)
 - Autoprep Pretreatment Wipe or Pen materials
 - Glass reinforced polyester laminates (GRP) with intact and unbroken surface
 - Polyester body filler
 - Non-Polyolefin type plastics
 - Sikkens Primer PO LV or Primer PO
-
- For many applications, Colorbuild Plus 250 can be used as a direct-to-metal primer
 - Although Colorbuild Plus 250 provides adequate adhesion to bare steel, repairs which require extensive metal priming, such as whole panels or panels that have had the existing paint system completely removed, should be pretreated with Autoprep Pretreatment materials
 - Under no circumstances should Colorbuild Plus be applied to glass reinforced polyester laminates (GRP) that have the gelcoat or surface coating broken through. Approved polyester fillers should be used for these repairs.
 - Before painting plastic, refer to the Plastic Identification and Systems Technical Data Sheet for specific information about painting plastics

Products and Additives

Product	<ul style="list-style-type: none"> • Colorbuild Plus 250 White – Item # 397937 • Colorbuild Plus 250 Black – Item # 397932 • Colorbuild Plus 250 Red – Item # 397933 • Colorbuild Plus 250 Blue – Item # 397934 • Colorbuild Plus 250 Green – Item # 397935 • Colorbuild Plus 250 Yellow – Item # 397936
Hardeners	<ul style="list-style-type: none"> • Colorbuild Plus 250 Hardener – Standard hardener for primer surfacer and primer sealer. Temperature range between 65°F (18°C) and 90°F (32°C) – Item # 397938 • Colorbuild Plus 250 Hardener Slow – Designed for improved overspray melt-in for high temperature applications. Potlife is shorter when utilizing this hardener – Item # 484451
Activators / Reducers	<ul style="list-style-type: none"> • Colorbuild Plus 250 Activator Spot & Panel – Activator for surfacer mixtures on small to medium sized repairs. Temperature range between 65°F (18°C) and 85°F (29°C) – Item # 397939 • Colorbuild Plus 250 Activator Medium – Activator for surfacer used on larger repairs. Temperature range between 75°F (24°C) and 90°F (32°C). – Item # 397940 • Colorbuild Plus 250 Slow Activator – A standard activator for surfacer or sealer mixtures intended for small to medium sized repairs. Temperature range between 65°F (18°C) and 90°F (32°C) – Item # 397941 • Colorbuild Plus 250 Activator Extra Slow – Used for larger surfacer or sealer mixtures and higher temperatures. Temperature range above 90°F (32°C) – Item # 397942

Additives

- **LV Elast-o-Actif (Item #398218)**– For use on flexible parts. When mixed in Colorbuild Plus 250 it increases the flexibility of both surfacer and sealer mixtures – Item # 398218
- **Colorbuild Plus 250 Underhood Additive** – Can be used to make a single application, colored matte under hood coating for cutting in parts – Item # 542679
- **LV 250 Accelerator** – Item # 389353
 - Accelerated Colorbuild Plus 250 Surfacer should not be used on bare steel. It may be used over the Autoprep Pretreatment wipes or pen material

○ SDS and TDS for products available online at – <http://my.anaac.net/>

Basic Raw Materials



- Colorbuild Plus 250 Primer – Acrylic and polyester resins
- Colorbuild Plus 250 Hardeners – Polyisocyanate resins
- Colorbuild Plus 250 Activators – Activated solvents
- Additives – Refer to individual TDS for information

Substrate Preparation



Pre-Cleaning

- If needed, pre-wash the repair with warm soap and water. Rinse completely with clean water
- Clean with the appropriate AkzoNobel / Sikkens waterborne and solventborne surface cleaners
- Avoid saturating body filler with water or cleaner while washing the repair

Sanding Preparation



- Existing finishes
- OEM e-coat
- Polyester bodyfiller
- Steel
- Galvanized steel
- Aluminum
- Gelcoat
- Polyolefin plastic
- Non-polyolefin plastic

	Colorbuild Plus Surfacer		Colorbuild Plus Sealer	
	Dry Sanding		Dry Sanding	Wet Sanding
Existing finishes	#P220 to #P360		#P320 – #P400	#P500 – #P600
OEM e-coat	Not Required		Not Required	Not Required
Polyester bodyfiller	#P180 to #P220		N / A	N / A
Steel	#P80 then #P120		#P80 then #P120	N / A
Galvanized steel	#P120 to #P180		#P120 – #P180	N / A
Aluminum	#P180 or Red Scuff Pad		#P180 – Red Pad	N / A
Gelcoat	#P220 to #P360		#P320 – #P400	#P500 – #P600
Polyolefin plastic	#P320 to #P400		#P400	#P500 – #P600
Non-polyolefin plastic	#P320 to #P400		#P320 – #P400	#P500 – #P600



Surface Cleaning

- Clean with the appropriate AkzoNobel / Sikkens waterborne and solventborne surface cleaners

Pretreatment of Bare Substrates

Pretreatment



- Colorbuild Plus 250 provides adequate adhesion to small bare metal areas. For larger areas or for improved corrosion protection, Colorbuild Plus 250 should be applied over a metal pretreatment such as the Autoprep Pretreatment Wipes or Autoprep pen materials
- Polyolefin plastics require a pretreatment adhesion promoter. Prime polyolefin plastics with Primer PO LV (or Primer PO in National Rule VOC areas) prior to the application of flexed Colorbuild Plus 250. For more information about painting plastic, refer to the Plastic Identification and Systems Technical Data Sheet

Product Agitation

Stirring



- Because Colorbuild Plus 250 is high solids, it needs to be thoroughly agitated before use
- Before installing a mixing lid on a new can of Colorbuild Plus 250, shake on a mechanical shaker for a minimum of 10 minutes to ensure a consistent mixture
- Stir Colorbuild Plus 250 several times per day
- Stir after the primer color formula is completed, after the addition of hardener, and again after adding activator or reducer for the most complete mixing

Mixing Colorbuild Plus Colors

Formulas

- A wide range of Colorbuild Plus 250 formulas are available to match the most popular OEM primer colors. These are available on formula swatches or in MIXIT



Hand Mixing Colors

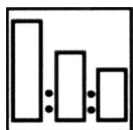
- Colors can be custom mixed. Note that when hand-mixing colors, it is helpful to include Colorbuild Plus 250 White and/or Black in your formula. This includes adding a small amount of black to white or white to black, in many cases

Colorbuild Plus 250 Grey Shades

- Colorbuild Plus 250 Grey Shades is an achromatic color concept which may be used alongside the existing Colorbuild Plus 250 color palette. The Colorbuild Plus 250 Grey Shades recommendation may be visible in MIXIT as undercoat shade advice for specific color formulas

Black : White CBP 250	Description	CBP 250 Grey Shades
0 : 100 (0 : 100)	White	CBP501 (SGS1)
1 : 19 (5 : 95)	Light grey	CBP502 (SGS2)
1 : 4 (20 : 80)	Grey	CBP503 (SGS3)
1 : 1 (50 : 50)	Mid-grey	CBP504 (SGS4)
4 : 1 (80 : 20)	Dark grey	CBP505 (SGS5)
100 : 0 (100 : 0)	Black	CBP021

Mixing – Surfacers

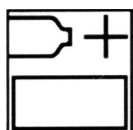


BY VOLUME
Stick #5

4
1
1

Surfacers – By Volume

- Parts Colorbuild Plus 250
- Part Colorbuild Plus 250 Hardener
- Part Colorbuild Plus 250 Activator
- ✓ Use the Sikkens #5 (Orange) measuring stick when mixing by hand.



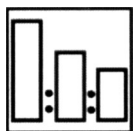
1 liter
+
5–7ml

Accelerated Surfacers

- Colorbuild Plus 250 Surfacers (mixed ready to spray with hardener and activator)
- Sikkens LV250 Accelerator and stir thoroughly.

- ✓ Use accelerator ONLY in surfacer mixture. Do not add more than stated amount to maintain product quality. Do not use accelerator in sealer mixture.

Mixing – Sealer



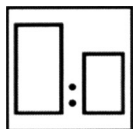
BY VOLUME
Stick #9

3
1
1

Sealer – By Volume

- Parts Colorbuild Plus 250
- Part Colorbuild Plus 250 Hardener
- Part Colorbuild Plus 250 Activator Slow or Extra Slow
- ✓ Use the Sikkens #9 (Gray) measuring stick when mixing by hand.

Mixing – Flexible Parts



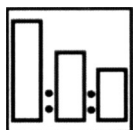
BY VOLUME

100
15 parts

Make a Mixture of

- Parts by volume Colorbuild Plus 250
- Parts by volume LV Elast-o-Activ

Stir the paint and LV Elast-o-Activ mixture together then step #2 mix surfacer or sealer –

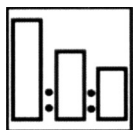


BY VOLUME
Stick #5

4
1
1

Surfacers – By Volume

- Parts Colorbuild Plus 250 / LV Elast-o-Activ mixture (Previous step)
- Part Colorbuild Plus 250 Hardener
- Part Colorbuild Plus 250 Activator
- ✓ Use the Sikkens #5 (Orange) measuring stick when mixing by hand.



BY VOLUME
Stick #9

3
1
1

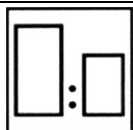
Sealer – By Volume

- Parts Colorbuild Plus 250 / LV Elast-o-Activ mixture (Previous step)
- Part Colorbuild Plus 250 Hardener
- Part Colorbuild Plus 250 Activator Slow or Extra Slow
- ✓ Use the Sikkens #9 (Gray) measuring stick when mixing by hand.

Mixing – Underhood Colors

Under the hood or deck lid, in the engine compartment or even in door jambs, some cars have a solid color matte finish. Colorbuild Plus 250 can be used to imitate the most popular colors with the use of Colorbuild Plus 250 Underhood Additive. When used, it provides an eggshell gloss level of approximately 40 gloss units (GU at 60° viewing angle). This option also offers adequate mar and stain resistance for underhood applications. Colorbuild Plus 250 Underhood colors can also be used as primer sealer on the entire part when painting pieces off of the car.

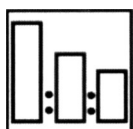
Colorbuild Plus 250 Underhood mixtures cannot be used on bare aluminum and, when used as a sealer on the outside of parts, it must be topcoated.



BY VOLUME
Stick #32

- Make a Mixture of**
- 100 Parts by volume Colorbuild Plus 250
 - 40 Parts by volume Colorbuild Plus 250 Underhood Additive
- ✓ Use the Sikkens #32 measuring stick when mixing by hand.

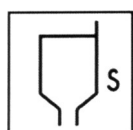
Stir the Colorbuild Plus 250 / Underhood Additive mixture together then, step #2, further mix –



BY VOLUME
Stick #9

- Underhood Sealer Color**
- 3 Parts Colorbuild Plus 250 / Underhood Additive mixture (previous step)
 - 1 Part Colorbuild Plus 250 Hardener
 - 1 Part Colorbuild Plus 250 Activator
- ✓ Use the Sikkens #9 (Gray) measuring stick when mixing by hand.

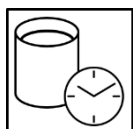
Viscosity When Mixed



DIN #4

- Seconds Measured with a DIN #4 viscosity cup at 70°F (21°C).**
- 18 – 22 Colorbuild Plus 250 Surfacer – Sanding
 - 13 – 16 Colorbuild Plus 250 Sealer – Non-Sanding
 - 13 – 16 Colorbuild Plus 250 Underhood

Pot-Life When Mixed



Product Mix	70°F (21°C)	85°F (29°C)
• CBP 250 Surfacer – Med or Slow Activator	– 50-60 minutes	– 25-35 minutes
• CBP 250 Surfacer – Spot & Panel or Medium Activator and LV250 Accelerator	– 25-35 minutes	– 10-15 minutes
• CBP 250 Surfacer – Slow Hardener	– 25-35 minutes	– 10-15 minutes
• CBP 250 Sealer – Slow Activator	– 2 hours	– 70-90 minutes
• CBP 250 Underhood Additive mixture	– 1.5-2 hours	– 60-70 minutes

Spray Gun Set-Up

Consult spray gun manufacturer instructions for detailed spray gun pressure specifications.

SURFACER



Surfacer Spray Gun	Fluid Tip	Application Pressure
HVLP Gravity Feed	1.7 – 1.9mm	<10 psi (<0.7 bar) at cap.
Compliant Gravity Feed	1.7 – 1.9mm	psi per spray gun manufacturer.

SEALER



Sealer Spray Gun	Fluid Tip	Application Pressure
HVLP Gravity Feed	1.3 – 1.5mm	<10 psi (<0.7 bar) at cap.
Compliant Gravity Feed	1.3 – 1.5mm	psi per spray gun manufacturer.

Application

Primer Surfacer



- Apply 2-3 single wet coats. For use on repair (polyester bodyfiller) or sanded areas, apply one coat over the total sanded repair area. Apply the 2nd and 3rd coat within each preceding coat.
 - Flash off between the coats until the surface becomes totally matte, this will depend on ambient temperature, applied thickness/wetness and airflow.
 - Alternate application; Colorbuild Plus 250 mixed as a surfacer (4:1:1) may be used wet-on-wet when edging in parts. When using this method, apply one coat of Colorbuild Plus 250. Apply topcoat after 15 minutes to a maximum of 45 minutes at 70°F (21°C).



Wet-on-Wet Primer Sealer

- Apply 1 thin but flowing coat over the desired area.
 - Over any sand through areas, first apply a thin coat to make all the substrate layers uniform before continuing with a normal coat.

Underhood Sealer Color

- Apply 1-2 thin but flowing coats. If two coats are applied, flash between coats.



Accelerated Application

- Accelerated Colorbuild Plus 250 should not be used on bare metal. It may be used over the Autoprep Pretreatment Wipe or Autoprep Pen materials.

Drying / Curing Time – Primer Surfacer

Primer Surfacer Air Dry

- 3 Hours at 70°F (21°C)
- 1.5 – 2.0 Hours at 70°F (21°C) when mixed with LV250 Accelerator



Primer Surfacer Force Dry Bake

- 30 Minutes at 140°F (60°C)
- 20 Minutes at 140°F (60°C) when mixed with LV250 Accelerator.

Times are stated following recommended application method, film thickness and object temperature.

Primer Surfacer Shortwave Infrared Curing

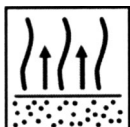
Drying / Curing with shortwave light IR equipment and a surface distance of 20 – 27 inches (50 – 70cm). The object temperature must not exceed 212°F (100°C).



- Allow a 3 to 5-minute flash off before infrared curing.
- Cure 5 minutes on low power followed directly by a 10-minute full-power cure.

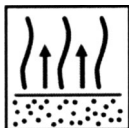
Drying Flash Time – Primer Sealer

Primer Sealer Flash Time



- Prior to topcoating primer sealer, allow to flash 15 minutes or until fully matte (70°F (21°C))
- May be sanded to de-nib after a minimum flash dry time of 15 - 20 minutes at 70°F (21°C) Extend flash prior to de-nibbing if Elast-o-Actif LV was added during mixing
- Maximum recoat time at 70°F (21°C): 1 ½ - 2 ½ hours, dependent on hardener and activator selection
- If the maximum flash time is exceeded, Colorbuild Plus 250 sealer must be sanded prior to topcoat application: #P500 to #P600 dry or #P800 wet sandpaper

Flash Time / Dry Time – Under Hood



Underhood Sealer Flash Time

- Prior to topcoating Colorbuild Plus Underhood used as a sealer, allow a minimum flash off time of 15 minutes at 70°F (21°C). Maximum flash time of 1 hour.



Underhood Color – Dry to Handle Time

- One coat at 70°F (21°C) dry to handle in 15 minutes.
- One coat at 80°F (27°C) dry to handle in 10 minutes.

Final Preparation – For Topcoat Application



Dry Sanding – Machine

- When dry sanding, respect a maximum 200 sanding grit step or less throughout sanding.
- Initial sanding may be done with #P320 to P400.
- Final sanding should be done using #P500 to #P600 before application of Sikkens topcoats.



Wet Sanding – By Hand

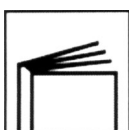
- When wet sanding, respect a maximum 200 sanding grit step or less throughout sanding.
- Initial sanding may be done with grits courser than #P600.
- Final sanding should be completed using #P800 before application of Sikkens topcoats.



Surface Cleaning

- Clean with the appropriate AkzoNobel / Sikkens waterborne and solventborne surface cleaners

Recoating



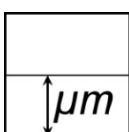
- Sikkens Colorbuild Plus 250 can be recoated with all Sikkens sealers and topcoats.

Cleaning of Equipment



- Clean equipment and dispose of waste following local and federal regulations. In compliant localities, use a Sikkens Cleaning Solvent LV. For national rule regions, a use Sikkens Cleaning Solvent.
- For efficient cleaning and less evaporated cleaning solvents, an enclosed automatic gun cleaning machine is suggested.

Film Thickness – Using Suitable Application



Primer Surfacer

- 3 Coats will achieve a thickness of 4.0 – 5.0 mils (100 – 125μm).

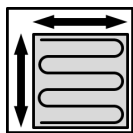
Primer Sealer

- 1 Coat will achieve a thickness of 1.0 – 1.2 mils (25 – 30μm).

Underhood Color

- 1 Coat will achieve a thickness of 1.0 – 1.2 mils (25 – 30μm).

Theoretical Coverage



Colorbuild Plus 250 Primer Surfacer - Per coat of ready to spray paint 105 ft²/ liter (9.5m²/liter).
 Colorbuild Plus 250 Primer Sealer - Per coat of ready to spray paint 129 ft²/ liter (12m²/liter).

- Actual coverage is dependent on many factors which may include the shape of the object, surface smoothness, application technique, and other application variables which could affect actual coverage.

VOC / Regulatory Information



System	Mix Ratio	VOC
- Primer Surfacer	4:1:1	1.7 lb/gal (212g/liter)
- Primer Surfacer + LV250 Accelerator	4:1:1+.7%	1.78 lb/gal (213g/liter)
- Primer Sealer	3:1:1	1.87 lb/gal (224g/liter)
- Flexible Parts, Primer Surfacer	100:15 with E-o-A then 4:1:1	1.79 lb/gal (215g/liter)
- Flexible Parts, Primer Sealer	100:15 with E-o-A then 3:1:1	1.88 lb/gal (226g/liter)
- Underhood Additive Sealer	100:40 with UHA then 3:1:1	1.85 lb/gal (222g/liter)

- Do not handle until the Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist.

Product Storage



- Store unopened, or products in use with approved closed containers and proper labeling. Store in moderate temperatures between 40°F - 95°F (5°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 70°F (21°C).
- Refer to the Product Shelf Life Overview TDS or the current price list for the most up-to-date shelf-life information

AkzoNobel Inc., North America

Address: 1845 Maxwell Street – Troy, MI USA
Telephone: 800.618.1010

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 Safety 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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Head Office

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