

TOPCOAT XS4201-ST

FINISHES FOR AIRCRAFT EXTERIORS

AkzoNobel

Product information



High solid polyurethane 2K topcoat for structural application.
XS4201-ST is available in high gloss and semi-gloss.

Components



Base XS4201-ST
Hardener / Catalyst XS4201-ST
Thinner P2

Specifications



Product information mentioned in the technical datasheet is given for information purposes and can differ from requirements of specifications above. In that case, customer requirements are valid for your application.

Physical properties



THEORETICAL COVERAGE

22 m²/ L for 25µm dry (base and hardener undiluted)

DRY FILM WEIGHT

1.45

VOC

420 g/l (ISO11890-1 and ASTM D 3960)

COLOR

Pastel Blue

SHELF LIFE / STORAGE

18 months for the base and hardener stored between 5°C and 35°C in full and sealed original packaging.
48 months for thinner P2 stored between 5°C and 35°C in full and sealed original packaging.

GLOSS LEVEL

above 90 GU below 60° for high gloss and below 50 GU for semi-gloss

NOTES

Flash Point : 24°C for the base and 170°C for the hardener Gloss levels have been determined using glossmeter with an angle of incidence of 60°. The theoretical consumption value doesn't take into account the transfer efficiency for spray application

Surface preparation



XS4201-ST must be applied on P25 primers such as P25-B or P25-C.
The XS4201-ST top coat is intended for use on metallic substrates (steel, aluminium alloys) coated with a surface treatment (anodisation, conversion) and P25 PU primers for adhesion and corrosion protection.

All the recommendations mentioned above are given for information.

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Instructions for use



SPRAY APPLICATION

MIXING RATIO

	Mixing ratio by weight	Mixing ratio by volume
Base	100	4 V
Hardener / Catalyst	25	1 V
Thinner	10 to 30	0.5 V to 1.5 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored between 18°C and 25°C for 24 hours before use.
The XS4201-ST base should be mixed for 5 minutes in a pneumatic or oscillating mixer before use.
Mix the base, hardener and thinner until the mixture is homogenous.
Preparation should be carried out between 15°C and 35°C.
Sieve the mixture with a 125-190 µm mesh

Mixing ratio by weight are recommended for small mixing.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

Zahn 2 Cup	ISO 4 Cup
20%w Dilution	20%w dilution
35 ± 7s	45 ± 10s

POT LIFE

4 hours @ 23°C

NOTE

Viscosities mentioned above are corresponding to the recommended range of viscosity to ensure compliant application. The range of dilution must be used to adjust viscosity to reach the recommended one.

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BRUSH APPLICATION

	Mixing ratio by weight	Mixing ratio by volume
Base	100	4 V
Hardener / Catalyst	25	1 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored between 18°C and 25°C for 24 hours before use.
The XS4201-ST base should be mixed for 5 minutes in a pneumatic or oscillating mixer before use.
Mix the base and hardener until the mixture is homogenous.
Preparation should be carried out between 15°C and 35°C.
Sieve the mixture with a 125-190 µm mesh

Mixing ratio by weight are recommended for small mixing.

INDUCTION TIME

None

POT LIFE

3 Hours @ 23°C

NOTE

A brush or a roller can be used for repairs

Application recommendations



CONDITIONS

Temperature 15°C to 35°C

Relative humidity 20% to 80%

EQUIPMENT

Gravity compressed air gun Nozzle 1.2 to 1.8 mm

DRY / WET FILM THICKNESS

20 to 40 µm dry / 45 to 90 µm wet for 1V dilution

NUMBER OF COATS

Apply several layers in order to achieve recommended thickness.

EQUIPMENT CLEANING

Clean the equipment with an appropriate cleaning thinner such as MAPAERO D713 or P2 or cetonic solvent.

NOTE

Spray with dry, oil-free air.

The quality of the application of all coatings will be influenced by the spray equipment chosen and the temperature, humidity, and air flow of the paint application area.

When applying the product for the first time, it is recommended that test panels be prepared in order to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.

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Drying times



	23°C	45°C	60°C	80°C
Dust free	5 to 6 hours	1 hour to 2 hours	40 min	20 min
Dry to handle	8 hours	2 hours to 3 hours	60 min to 70 min	40 min to 50 min
Dry to tape	8 to 9 hours	2 hours to 3 hours	70 min to 80 min	50 min to 60 min
Fully Cured	7 days	24 hours	12 hours	8 hours

NOTE

Drying times have been determined using test pieces of a thickness <2 mm for 30µm dry film and with sufficient air flow.

Flash off is not necessary whatever the curing temperature and might influence slightly drying times

Catalysed version of Thinner P2 is under development and will allow to divide by two drying times

Chemical resistance:

	23°C	45°C	60°C	80°C
Diestone DLS 50 double rubbs	3 days	5 hours	1 hour 30	70 min

Slight discoloration may appear

Defects & corrections



In the event of a defect, contact your Quality Department.

Health & Safety



See the product Safety Data Sheet.

The MSDS are available through our website www.mapaero.com upon request.

Packing



The base is available in 1 L and 4 L.
The hardener is available in 1 L.
The thinner is available in 1 L and 5 L.

WARRANTY : We guarantee our products against hidden defaults over material and preparation. Our Responsibility is limited to the obligation of freely replacing the defective material without there being a claim for any compensation. The advice we give is based on our experience but it might not be absolutely right. Consequently this does not imply our responsibility in case of inefficiency. Furthermore our company cannot be responsible for any material or corporal damages caused due to a misuse or mishandling of our products. Any concession to these clauses, to be valid, must be an official document issued by our offices and signed by our direction.