

XS420 Topcoat

Technical Data Sheet

Product Group

Characteristics



Product Information

Components



Specifications



Qualified Product List

Surface Conditions



Surface Preparation/
Cleaning

Instruction for Use



Spray Application (Mix Ratio)

Polyurethane Top Coat

Three-component polyurethane topcoat with high solid content and high chemical resistance, used for structural and external applications. It is recommended to use the XS420 topcoat in combination with Mapaero chromate-free corrosion resistant primer SP350.

Base	XS420 Base
Hardener	XS420 Hardener
Thinner	713 Thinner
Thinner	713-2 Thinner

Aircelle	HMRC0150A
Safran Landing Systems	IFC30-125-06

Product specifications change constantly. To ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at aerospace.akzonobel.com/products.

The XS420 top coat is intended for use on metallic substrates (steel, aluminium alloys) coated with a surface treatment (anodization, conversion) and an epoxy primer for adhesion and corrosion protection (such as MAPAERO SP350).
Application of SP350 primer -->See SP350 Technical Data Sheet.

All the recommendations mentioned above are given for information.

	Volume	Weight
XS420 Base	3V part	100 parts
XS420 Hardener	1V part	26 parts
Thinner*	1V parts	20 parts

* Thinner options: 713 Thinner, 713-2 Thinner

MIXING PROCEDURE:

- Ideally, the unmixed products should be stored between 18°C and 25°C (64°F and 77°F) for 24 hours before use.
- The XS420 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 (59°F and 95°F).



Induction Time

Not Applicable.



Initial Spraying Viscosity
(20°C/68°F)

Spraying viscosity at 20°C / 68°F

	CA 4	ISO 4
18°C - 30°C (64.4°F - 86°F)	23 +/- 5s	38 +/- 5s
30°C - 35°C (86°F - 95°F)	21 +/- 5s	35 +/- 5s

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	Note	Viscosity measurements are provided as guidelines only and are not to be used as quality control parameters. Certified information is provided by certification documentation available on request.											
	Pot life (20°C/68°F)	3 hours for the Thinner 713 1 hour for the Thinner 713-2											
	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 ISO 4 cup is the reference cup. The others are given for information purpose.											
	Dry Film Thickness (DFT)	20 – 60 µm 0.8 – 2.4 mils											
	Wet Film Thickness (WFT)	45 – 120 µm 1.8 – 4.7 mils											
	Brush Application (Mix Ratio)	<table><tr><th></th><th>Volume</th><th>Weight</th></tr><tr><td>XS420 Base</td><td>3V parts</td><td>100 parts</td></tr><tr><td>XS420 Hardener</td><td>1V part</td><td>26 parts</td></tr></table>				Volume	Weight	XS420 Base	3V parts	100 parts	XS420 Hardener	1V part	26 parts
	Volume	Weight											
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		MIXING PROCEDURE											
		- Remove the safety ring and press down on the cap to release the XS420 hardener. - Shake the container for approximately 1 minute. - Remove the cap to be able to apply the XS420 topcoat with a suitable brush. - If the material after shaking of 1min is not homogeneous please use a stick for further mixing (around 1min) until the material is homogenic.											
		Do not hermetically close TUK after mixing base and hardener.											
	Note	Not Applicable.											
	Pot life (20°C/68°F)	3 Hours.											
	Dry Film Thickness (DFT)	20 – 60 µm 0.8 – 2.4 mils											
	Wet Film Thickness (WFT)	45 – 120 µm 1.8 – 4.7 mils											

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Application Recommendations

	Conditions	Temperature: 15 – 35 °C 59 – 95 °F Relative Humidity: 30 – 85 %
	Conditions	TOPCOAT XS420 may be applied in conditions outside the limits shown above. Care must be exercised to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the appropriate application techniques when environmental conditions fall outside of the recommended range.
	Equipment Recommendation	Gravity compressed air gun Nozzle 1.3 to 1.8 mm.
	Number of Coats	The number of coats depends on the size and the shape of the part to which it is being applied. Application of 20-40 µm (0.8-1.6 mils): Application of two coats to obtain the required thickness. Leave to flash off for 1 hour at 23°C ± 5°C (73°F ± 41°F) before drying. Application of 40-60 µm (1.6-2.4 mils): Application of several layers to obtain the required thickness. Leave to flash off for 1.5 hours at 23°C ± 5°C (73°F ± 41°F) before drying.
	Cleaning of Equipment	Clean the equipment with an appropriate cleaning thinner, such as Mapaero D713.
	Note	Spray with dry, oil-free air.

Physical Properties

	Drying Times	Thinner 713 Red	23°C (73.4°F)	40°C (104°F)	60°C (140°F)	80°C (176°F)	100°C (212°F)	Infra- (80°C)
		)						
		Dry to touch	8 hrs (*)	3-4 hrs	2 hrs	45 mins-1 hr	1 hr	NA
		Dry to handle mins	10-12 hrs (*)	8-10 hrs	4 to 5 hrs	3-3.5 hrs	1 hr	60 ± 5
		Dry to tape 10 mins	16 hrs (*)	8-10 hrs	4 to 5 hrs	3-3.5 hrs	1 hr	90 ±
		Fully Cured 50 AR MEK	7 d NA	72 h NA	12 h NA	6 h NA	4 hrs NA	NA NA
		Thinner 713-2 Red	23°C (73.4°F)	40°C (104°F)	60°C (140°F)	80°C (176°F)	100°C (212°F)	Infra- (80°C)
		Dry to touch	4 hrs	1.5-2 hrs	30-45 mins	15-30 mins	N.A.	NA
		Dry to handle mins	4.5-5.5 hrs	2-3 hrs	45 min-1.5 hrs	30-45 mins	N.A.	60 ± 5
		Dry to tape 10 mins	6.5-7.5 hrs	3-4 hrs	1.5-2 hrs	1-1.5 hrs	N.A.	90 ±
		Fully Cured 50 AR MEK	3 d NA	24 hrs NA	7 hrs NA	3 hrs NA	NA NA	NA 2.5 hrs
	Note	Drying times have been determined using test pieces of a thickness < 2 mm and for 40 µm (1.6 mils) of dry film. Desolvation time : from 1 hour to 1.5 hours *N.A. : Not applicable. (*): values correspond to the white tint, N.A. for blacks.						

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	Theoretical Coverage	13 m²/l or 529 ft²/gal for 40 µm (1.6 mils) (ready-to-use mixture).	
	Dry Film Weight	1.5	
	Volatile Organic Compounds	420 g/l or 3.5 lbs/gal (ISO11890-1 and ASTM D 3960).	
	Gloss	> 85GU at 60° for tints of Black, Red and Yellow, and > 90GU at 60° for tints White and Grey.	
	Color	As required.	
	Flash Point	XS420 Base	Between 23 °C (73 °F) and 60 °C (140 °F)
		XS420 Hardener	Between 23 °C (73 °F) and 60 °C (140 °F)
		713 Thinner	Between 23 °C (73 °F) and 60 °C (140 °F)
		713-2 Thinner	Between 23 °C (73 °F) and 60 °C (140 °F)
	Storage	Store the product dry and at a temperature between 5 and 35°C / 41 and 95°F per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Storage temperature and shelf life may vary per OEM specification requirements. Refer to the container label for specific storage life information.	
Shelf life 5 - 35°C (41 - 95°F)		XS420 Base	18 months
		XS420 Hardener	18 months
		713 Thinner	48 months
		713-2 Thinner	48 months

Safety Precautions Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on request.

Revision date: January 2026 (supersedes April 2022) - FOR PROFESSIONAL USE ONLY

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 advice given is 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. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel