

Aeroflex HS 113F01

Technical Data Sheet

Product Group

Wing Coating

Characteristics

Aeroflex HS 113F01 is a low VOC 3-component isocyanate cured polyurethane coating with excellent flexibility for exterior use on the upper surface (in-spar) of the wing box and horizontal stabilizers.

- Low VOC due to High Solids technology
- Highly flexible
- Low surface roughness
- Applicable over various high solid and conventional primers



Product Information

Components

Base	Aeroflex HS 113F01
Curing Agent	Hardener 90121
Activator	Activator 99330
Activator	Activator 99322



Specifications

Airbus	AIMS 04-04-034
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Qualified Product List

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.

Surface Conditions

Surface preparation for OEM



Surface Preparation/
Cleaning

- Observe the overcoat limits of the relevant primer/topcoat.
- Remove oil, grease and other contaminants prior to the application of Aeroflex HS 113F01.
- Recondition aged primers or topcoats with grade P320 sandpaper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.
- Remove dust with clean tack rags prior to the application of Aeroflex HS 113F01.

Surface preparation for MRO (maintenance)

Application over aged Aeroflex HS 113F01

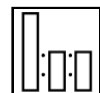
- Clean surface with cleaning solvent 98068.
- Partially remove aged Aeroflex HS 113F01 by sanding (finish with grade P320 sandpaper grit type).
- Pay particular attention to properly treating surfaces in high erosion areas.
- When sanding through the topcoat (or primer) repair locally with an appropriate primer (and pre-treatment) before applying Aeroflex HS 113F01.
- Thoroughly clean the surface with cleaning solvent 98068 before applying a fresh layer of Aeroflex HS 113F01.
- Apply a fresh layer of Aeroflex HS 113F01 within 24 hours after sanding/ activation of the aged Aeroflex HS 113F01 layer.

Application over aged Aeroflex Finish G12E25

- Totally remove old layers of Aeroflex Finish G12E25 till the primer layer by sanding or wash down using Solvent Cleaning C 28/15.
- Reactivate the aged primer with grade P320 sandpaper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.
- Apply refresh primer Aerodur HS 2121 according to the corresponding TDS.
- Observe the overcoat limits of the relevant primer.

Aeroflex HS 113F01

Instruction for Use



Spray Application (Mix Ratio)

	Volume	Weight
Aeroflex HS 113F01	4 parts	100 parts
Hardener 90121	1 part	25 parts
Activator*	1 part	19 parts

* Activator options: Activator 99330, Activator 99322

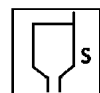
-Allow products to acclimatize to room temperature before use.
-Stir or shake Aeroflex HS 113F01 till all pigment is uniformly dispersed before adding hardener.
-Add hardener 90121 and stir the catalyzed mixture thoroughly.
-Add Activator 99330 or 99322 and stir again to achieve a homogeneous mixture.

The application and mixing characteristics of High Solid products differ from conventional products. Mix base and hardener for at least 2 minutes thoroughly. The high solid content causes a rapid film build-up.



Induction Time

Not applicable. The product is ready for use directly after mixing.



Initial Spraying Viscosity
(23°C/73°F)

36 – 46 seconds ISO Cup #4 for all colors
18 – 22 seconds Gardner Signature Zahn Cup #2 for all colors
39 – 49 seconds ISO Cup #4 for black
19 – 23 seconds Gardner Signature Zahn Cup #2 for black



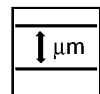
Note

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 (23°C/73°F)

1 hour in combination with Activator 99330
1½ hours in combination with Activator 99322



Dry Film Thickness (DFT)

30 – 50 μm
1.2 – 2 mils

Application Recommendations



Conditions

Temperature: 15 – 35 °C
59 – 95 °F

Relative Humidity: 35 – 75 %



Note

Aeroflex HS 113F01 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.

Aeroflex HS 113F01



Equipment Recommendation

Spray gun type	Product supply	Fluid Pressure	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet *
Conventional	NA	NA	1.2 – 1.5 mm	280 – 320 mL/min ¹	4 – 4.5 bar / 58 – 65 psi ²
HVLP / Next Generation	NA	NA	1.2 – 1.5 mm	280 – 320 mL/min ¹	2 – 2.5 bar / 29 – 36 psi ³
Air Atomizing (electrostatic)	NA	NA	1.2 – 1.5 mm	280 – 320 mL/min	4 – 4.5 bar / 58 – 65 psi ²
Pressure Atomizing (electrostatic)	NA	NA	0.009 inch/60° 0.013 inch/60°	65 – 75 bar/1.02 kpsi - 25 – 35 bar/0.43 kpsi	4 – 4.5 bar / 58 – 65 psi ²

¹ Product Flow is not applicable when using gravity/suction feed guns.
² Dynamic Air Pressure at the gun-inlet measured with an open trigger.
³ General advice to meet the HVLP / next-generation spray gun requirements, Please validate with your local authorities.



Cleaning of Equipment

Solvent Cleaning C 28/15 or Solvent Cleaning 98068.



Note

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 to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.

Physical Properties



Drying Times

23°C/73°F, 55% RH

Dry to Touch	1 hour
Dry to Tape	2 hours
Dry to Step	3 hours
Recoatable Maximum	48 hours Maximum recoat (at standard conditions with no reactivation required)

If the overcoating time of 48 hours is exceeded, recondition the aged wing coating with aluminum oxide non-woven abrasive, type very fine or grade P320 sanding paper, clean and tack the surface, and re-apply Aeroflex HS 113F01.



Theoretical Coverage

17 m² per liter ready to apply at 30 µm dry film thickness
 705 ft² per US gallon ready to apply at 1.2 mils dry film thickness



Dry Film Weight

White and Grey
 1.4 g/m²/µm
 0.0071 lbs/ft²/mil



Volatile Organic Compounds

Maximum 420 g/l
 Maximum 3.5 lbs/gal

Gloss (60°)

40 – 85 GU

Aeroflex HS 113F01



Color

White M8002
Grey M9004
Grey 704199
Black



Flash Point

Aeroflex HS 113F01	>21°C / 70°F
Hardener 90121	>21°C / 70°F
Activator 99330	<21°C / 70°F
Activator 99322	<21°C / 70°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)

Aeroflex HS 113F01	24 months
Hardener 90121	24 months
Activator 99330	36 months
Activator 99322	36 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: October 2024 (supersedes December July 2023) - 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