Aerodur HS 2118 CF Primer
Technical Data Sheet

Product Group

Epoxy Primer

Characteristics

Product Information

Aerodur HS 2118 CF Primer is a 3 component, chromate-free corrosion inhibiting, low VOC (High solids) amine-cured epoxy primer. This polyurethane compatible primer provides excellent chemical- and corrosion-resistance, optimal adhesion and is designed for application to aircraft exterior surfaces.

- AMS 3095A approved with many of AkzoNobel topcoats / basecoat-clearcoats for application over old paint layers;
- Can be applied on a Boeing aircraft fuselage when used in combination with a BMS 10-128 approved sol-gel type of pre-treatment;
- Qualified with Aerodur 5000 US Mil approved polyurethane camouflage topcoat.

Components

Base material	Aerodur HS 2118 CF Primer
Curing Solution	CS6035
Activator	A9190
Optional thinner	Thinner C 25/90 S or TR-114 (VOC exempt solvent per US guidelines)

Specifications

Qualified Product List

SAE	AMS 3095A
US Military	Mil-PRF-32239B
Irkut	741.140/21-00-00-0038-0T04/0A&0B

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

AkzoNobel Aerospace Coatings
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Aerodur HS 2118 CF Primer

Surface Conditions

Cleaning

Option 1: reactivated aged coating systems (Airbus)

- Clean aged primer or epoxy / polyurethane finishes and sand with grade P320 sanding paper or aluminum oxide non-woven abrasive material grade very fine to a uniform and matt surface;
- Remove dust and debris with e.g. tack rags.

If uncoated substrate is visible following sanding the old coating system, please follow the Airbus SRM guidance for a structural repair on these areas.

Option 2: in combination with an OEM approved pretreatment (Boeing)

- Clean aged primer or epoxy / polyurethane finishes and sand with grade P320 sanding paper or aluminum oxide non-woven abrasive material grade very fine to a uniform and matt surface;
- Remove dust and debris with e.g. tack rags;
- If the aircraft is chemically stripped, ensure the uncoated substrate is de-oxidized and prepared prior to application of the BMS 10-128 pre-treatment according to the Boeing AMM instructions.

Option 3: AMS3095A system direct to uncoated substrate

- It is advised to apply upon obtaining an NTO (No Technical Objection) from the fleet-owner or delegate;
- Clean aged primer or epoxy / polyurethane finishes and sand with grade P320 sanding paper or aluminum oxide non-woven abrasive material grade very fine to a uniform and matt surface;
- Remove dust and debris with e.g. tack rags;
- If the aircraft is chemically stripped, ensure the uncoated substrate is de-oxidized and prepared according to the OEM SRM/AMM prior to application of Aerodur HS 2118 or pre-treatment;
- Aerodur HS 2118 is qualified for the SAE AMS3095A exterior specification as direct to metal primer, and in combination with Metaflex SP 1050 and the BMS 10-128 approved pretreatment. Please follow the instructions for the individual pre-treatments for application.

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Instruction for Use

Mixing Ratio

Aerodur HS 2118 CF Primer	4 parts
Curing Solution CS6035	1 part
Activator A9190	1 part
Optional Thinner C 25/90 S or Thinner TR-114*	1 part

Note: when the optional thinner is used the material is not VOC compliant according EU legislation. Thinner TR-114 is an exempt solvent and HAPS free thinner and can be used in the US without impact on VOC.

- Stir or shake base until all pigment is uniformly dispersed before adding curing solution and activator.
- Add curing solution to base component and stir thoroughly for at least 1 minute.
- Add the activator and stir the catalyzed mixture thoroughly.
- If the optional thinner is used: add together with the activator and follow the mixing instructions.

Induction time

Not applicable; the product can be used directly after mixing

Initial Spraying Viscosity (23ºC/73ºF)

	Without the optional thinner	With the optional thinner
ISO-Cup 4	24-36 seconds	15-25 seconds
Signature Zahn-Cup 2	17-21 seconds	13-17 seconds

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 (23ºC/73ºF)

2 hours (without the optional Thinner C 25/90 S or TR-114)
3 hours (with the optional Thinner C 25/90 S or TR-114)

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Dry Film Thickness (DFT)	15 – 35 µm 0.6 – 1.4 mil

Application Recommendations

Conditions	Temperature:		15 – 35°C 59 - 95°F
	Relative Humidity:		35 – 75%
Note	Aerodur HS 2118 CF Primer may be applied in conditions outside the limits shown above. Care must be excercised 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	Conventional / HVLP	Nozzle orifice / tip-size Atomizing air pressure	1.2-1.5mm 2-2.5 bar/29-36 psi
	Low pressure (electrostatic)	Nozzle orifice / tip-size Product flow rate Nozzle orifice / tip-size Product flow rate Atomizing air pressure	1.2 mm 280-300 mL/min 1.5 mm 230-260 mL/min 4-4.5 bar/58-65 psi
	High pressure (electrostatic)	Nozzle orifice / angle 0.009 inch 0.013 inch Atomizing air pressure	60º angle 70 bar (1015 psi) 30 bar (435 psi) 4-4.5 bar 58-65 psi
Number of Coats	Spray a uniform wet coat to a dry film thickness of 15 – 35 µm (0.6 – 1.4 mil).		
Cleaning of equipment	Solvent Cleaner C28/15, Solvent Cleaner 98068, MEK or Acetone		

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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 (23ºC/73ºF, 55% RH)

Dry to topcoat	2 hours
Dry to sand	4 hours
Dry to tape	3-4 hours
Maximum recoat time for primer or topcoat application	96 hours

If the overcoat time of 96 hours is exceeded, recondition the aged primer with aluminum oxide non-woven abrasive, type very fine or P320 grade sanding paper before applying the subsequent coating.

Theoretical Coverage

29 m^2 per liter mixed Aerodur HS 2118 CF Primer at 20 µm dry film thickness
1196 ft^2 per US gallon mixed Aerodur HS 2118 CF Primer at 0.8 mil dry film thickness

Dry film Weight

1.8 $g/m^2/µm$
0.0092 $lbs/ft^2/mil$

Volatile Organic Compounds

European guidelines	350 g/L / 2.91 lbs/gal (without optional thinner) 421 g/L / 3.51 lbs/gal (with optional thinner)
US guidelines	325 g/L / 2.71 lbs/gal (without optional thinner) 403 g/L / 3.36 lbs/gal (with optional thinner C 25/90 S) 325 g/L / 2.71 lbs/gal (with optional thinner TR-114)

Color

Beige

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Flash-point

Aerodur HS 2118 CF Primer	>21°C / ≥70°F
Curing Solution CS6035	>21°C / >70°F
Activator A9190	<21°C / <70°F
Thinner C 25/90 S	<21°C / <70°F
Thinner TR-114	<21°C / <70°F

Storage

Store the product dry and at a temperature between 5 and 35 ºC / 41 and 100 ºF per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Refer to container label for specific storage life information.

Shelf life
5 – 35 °C
(41 – 95 °F)

Aerodur HS 2118 CF Primer	12 months
Curing Solution CS6035	24 months
Activator A9190	24 months
Thinner C 25/90 S	36 months
Thinner TR-114	24 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.

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