

# 8B6A Laminar X-500 Conductive Coating

## Technical Data Sheet

### Product Group

Conductive Coating

### Characteristics



Product  
Information

- A black, two-component catalyzed polyurethane conductive coating.
- Pigments selected for electrical conductive capabilities and for maximum erosion, abrasion and impact resistance.
- Cured film resists chemicals such as lubricants, hydraulic fluids and aircraft fuels.
- Provides exceptional rain erosion resistance and conductivity for bleeding off surface static electricity.
- Recommended for application to deicing equipment, propeller blades and other critical airframe areas subject to damaging effects of high speed contact with rain, hail, dust and other corrosive elements.

### Components



Curing Solution  
Thinner

Curing Solution: 50C3A  
Thinner: 66C20 or 66C28

### Specifications



Qualified  
Product List

McDonnell Douglas	HMS 20-1642
Bombardier/deHavilland	DHMS C4.13
Goodyear	GOODYEAR CUBERSIC
Hamilton Sunstrand	HS7136, Type 1, Class B
Irkut	741.140/21-00-00-0038-0T04/0B
Pratt & Whitney	PWA36013
Ilyushin	I756.18.616

For most recent up-date or missing specifications please check the qualified product list (QPL) on [www.akzonobel.com/aerospace](http://www.akzonobel.com/aerospace)

### Surface Conditions



Cleaning

Surface pretreatment is an essential part of the painting process.

- Clean laminates thoroughly.
- Sand lightly and apply conductive coating.
- Note: If pinholes or surface irregularities are present in the laminate, fill with; static conditioner filler (28C1) after cleaning and sanding, and surlacer (8W5) as required, prior to application of 8B6A.

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## Instruction for Use



Mixing Ratio  
(volume)

4 parts  
1 part  
1 part

Base 8B6A  
Curing Solution 50C3A  
Thinner 66C20 or 66C28

- Add 1 part 66C20 fast evaporating, or 1 part 66C28 slow evaporating thinner.
- Stir or Shake until all pigment is uniformly dispersed before adding curing solution.
- Stir the catalyzed mixture thoroughly



Induction Time

15 – 20 minutes



Initial Spraying  
Viscosity  
(25°C/77°F)

25 – 35 seconds ISO-Cup #4  
20 seconds Signature Zahn-Cup #2



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  
(25°C/77°F)

6 – 8 hours.



Dry Film  
Thickness  
(DFT)

Conductivity is achieved at a film thickness of 37-50 microns (1.5-2.0 mils). Rain erosion performance is optimized at a film thickness of 200-250 microns (8.0-10.0 mils).

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### Application Recommendations



Conditions

Temperature: 15 – 35°C  
59 – 95°F  
Relative Humidity: 35 – 75%



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



Equipment

Air 1.4 – 1.8 mm nozzle orifice  
HVLP 1.2 – 1.4 mm nozzle orifice  
Air Assisted Electrostatic .28 - .33 mm nozzle orifice



Number of Coats

Allow brush coat to stand 6 hours to overnight between coats. Spray coats may be applied consecutively, allowing 30 minutes between coats.



Cleaning of  
Equipment

MEK, or C28/15

### Physical Properties



Drying Times  
(25 +/- 2°C / 77  
+/- 2°F, 55 +/-  
5% RH)

Tack Free 30 – 60 minutes  
Dry through 6 – 8 hours  
Full cure 7 days








Surface  
Resistivity

25,000 Ohms / square, approximately

Shore A  
Hardness

80 – 90 Durometer hardness of cured film

## 8B6A Laminar X-500 Conductive Coating

	Theoretical Coverage	10.9 m <sup>2</sup> per liter ready to apply at 25 µm dry film thickness 445 ft <sup>2</sup> per US gallon ready to apply at 1 mil dry film thickness								
	Dry Film Weight	55.35 g/m <sup>2</sup> at 25.4 micron .0113 lbs/ft <sup>2</sup> at 1 mil								
	Volatile Organic Compounds	Max 650 g/l Max 5.3 lb/gal per ASTM D3960								
	Gloss (60°)	10 maximum GU								
	Color	Flat Black								
	Flash-point	<table border="0"> <tr> <td>8B6A</td> <td>-5°C / 23°F</td> </tr> <tr> <td>50C3A</td> <td>7°C / 45°F</td> </tr> <tr> <td>66C20</td> <td>-5°C / 23°F</td> </tr> <tr> <td>66C28</td> <td>15°C / 59°F</td> </tr> </table>	8B6A	-5°C / 23°F	50C3A	7°C / 45°F	66C20	-5°C / 23°F	66C28	15°C / 59°F
8B6A	-5°C / 23°F									
50C3A	7°C / 45°F									
66C20	-5°C / 23°F									
66C28	15°C / 59°F									
	Storage	Store the product dry and at a temperature between 5 and 38°C / 40 and 100°F per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Storage temperature may vary per OEM specification requirements. Refer to container label for specific storage life information.								
	Shelf life 5 - 38°C (40 - 100°F)	18 months per AkzoNobel Aerospace Coatings commercial specification for 8B6A and 50C3A. 24 months for 66C20 and 66C28. Shelf life may vary due to OEM specification requirements. Refer to container label for specific shelf life information.								

## 8B6A Laminar X-500 Conductive Coating

### Physical Properties Continued

Rain Erosion	Rain erosion (weight loss factor) on properly cured film Test: 8-10 mils (203-254 microns) dry film on whirling arm rain erosion tester. Propeller tip speed 563 mph. Rainfall rate 1 inch/hour. 1mm size droplets at surface contact.  First 10 minute exposure – No weight loss.  After 10 minutes exposure – Weight loss averages 0.00125 grams per gram of total exposed film surface per minute.
Abrasion Resistance	Taber abrader CS 17 Wheel, 1000 gram weight – 1 mil film loss per 7000 revolutions.
Solvent Resistance	Excellent (aliphatic, aromatic & ketones).
Jet Fuel Resistance	Excellent
Skydrol® Resistance	Excellent (Skydrol® 500)
Chemical Resistance	Excellent
Weathering Resistance	Good (slight chalk)
Impact Resistance	50-60 inch pounds
Dry Film Appearance	Flat

### 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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## 8B6A Laminar X-500 Conductive Coating

**Issue date: October 2020 (supersedes January 2015) - 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.

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