

# Aviox Advanced Mica Series

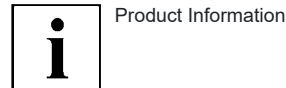
## Technical Data Sheet

### Product Group

### Polyurethane Top Coat

### Characteristics

Aviox Advanced Mica Series is part of the coatings system consisting of Aviox Finish 77702 - Aviox Advanced Mica Series - Aviox Clearcoat UVR system for exterior use. The main benefits are:



Product Information

- Creates unique appearance on aircraft livery
- Uniform sparkling special effect appearance
- Repairable
- Permanent wet look
- High solids
- Resistance to hydraulic fluids and chemicals

Micas and special effect coatings are fast becoming a favorite in creating a unique appearance on aircraft liveries. This repairable high solid formulation is world leader in the aerospace mica technology. Its flexible and adjustable dry-to-tape properties provide optimal processing behavior in various environmental conditions.

### Components

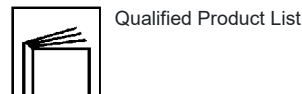
|                 |                            |
|-----------------|----------------------------|
| Base            | Aviox Advanced Mica Series |
| Curing Solution | Hardener 90150             |
| Activator       | Activator 99321            |
| Activator       | Activator 99341            |



### Specifications

|        |                |
|--------|----------------|
| Airbus | AIMS 04-04-025 |
|--------|----------------|

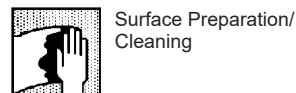
Product specifications are constantly changing, to ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at [aerospace.akzonobel.com/products](http://aerospace.akzonobel.com/products).



Qualified Product List

### Surface Conditions

- Aviox Advanced Mica Series is compatible with and applied on top of Aviox Finish 77702.
- Observe the recoat times of the previous layer of Aviox Finish 77702.
  - Apply Aviox Finish 77702 base color on clean primer, sealer or Aerobase layer. Remove oil, grease and other contamination prior to application.
  - Recondition aged primers or topcoats with grade P320 sanding paper or aluminum oxide non-woven abrasive material, type very fine, to a uniform matt surface.
  - Remove dust with e.g. tack rags just prior to application of Aviox Advanced Mica Series.



Surface Preparation/  
Cleaning

### Instruction for Use

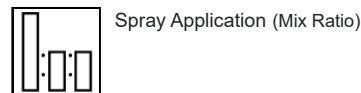
|                            | Volume  |
|----------------------------|---------|
| Aviox Advanced Mica Series | 2 parts |
| Hardener 90150             | 1 part  |
| Activator*                 | 1 part  |

\* Activator options: Activator 99321, Activator 99341

- Allow products to acclimatize to room temperature before use.
- Stir or shake Aviox Advanced Mica Series thoroughly until all pigments are uniformly dispersed before adding the Hardener 90150.
- Add Activator 99321 or 99341 and stir the catalyzed mixture thoroughly.


Activator Usage:


- Activator 99341 - (Whole fuselage application)
- Activator 99321 - (Decoration markings, small surface area)





Spray Application (Mix Ratio)

## Aviox Advanced Mica Series


 Induction Time Not applicable. The product is ready for use immediately after mixing.

 Initial Spraying Viscosity (23°C/73°F) 23 – 40 seconds ISO Cup #4  
12 – 19 seconds Gardner 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 (23°C/73°F) 2 hours


 Dry Film Thickness (DFT) Depending on the effect/color to apply  
40 – 60 µm  
1.6 – 2.4 mils

 Note 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..

### Application Recommendations

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


 Note Aviox Advanced Mica Series may be applied in conditions outside of the limits shown above. Care must be exercised to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the proper application techniques when environmental conditions fall outside of the recommended range.

| Equipment Recommendation   | Spray gun type                     | Product supply | Fluid Pressure | Nozzle orifice | Product flow                  | Dynamic air pressure at gun-inlet *  |
|--|------------------------------------|----------------|----------------|----------------|-------------------------------|--------------------------------------|
|  | Conventional                       | N/A            | N/A            | 1.2 – 1.5mm    | 340 – 360 mL/min <sup>1</sup> | 4 – 4.5 bar/58 – 65 psi <sup>2</sup> |
|  | HVLP / Next Generation             | N/A            | N/A            | 1.2 – 1.5mm    | 340 – 360 mL/min <sup>1</sup> | 2 – 2.5 bar/29 – 36 psi <sup>3</sup> |
|  | Air Atomizing (electrostatic)      | N/A            | N/A            | 1.2 – 1.5 mm   | 340 – 360 mL/min              | 4 – 4.5 bar/58 – 65 psi <sup>2</sup> |
|  | Pressure Atomizing (electrostatic) | N/A            | N/A            | N/A            | N/A                           | N/A                                  |

<sup>1</sup> Product Flow not applicable when using gravity / suction feed guns.

<sup>2</sup> Dynamic Air Pressure at gun-inlet measured with an open trigger.

<sup>3</sup> General advice to meet the HVLP / next generation spray gun requirements, please validate with your local authorities

 Note All filters in the application equipment should be removed to avoid clogging. Depending on the type of special effect pigment used, the use of pressure atomizing spray equipment (airless or air assisted) is not advised. Please consult your AkzoNobel representative if you are not sure. Extra attention should be paid when cleaning the equipment.

 Application Scheme **Step 1: Aviox Finish 77702**  
Observe the recoat limits of the relevant primer.

## Aviox Advanced Mica Series

Use the correct Aviox Finish 77702 base coat color in line with the selected Aviox Advanced Mica color. AkzoNobel Aerospace Coatings can advise what color to use.

Apply an even wet coat of Aviox Finish 77702 to create the base coat color. For more details check the technical datasheet of Aviox Finish 77702.

### Step 2: Aviox Advanced Mica

The flash-off time between Aviox Finish 77702 and Aviox Advanced Mica should be a minimum of 3 hours and a maximum of 48 hours depending on the overcoat times as mentioned in the Aviox Finish 77702 technical data sheet.

Apply Aviox Advanced Mica Series in a light closed coat, followed within 60 to 75 minutes by an even wet coat.

### Step 3: Aviox Clearcoat UVR

The flash-off time between Aviox Advanced Mica and Aviox Clearcoat UVR should be a minimum of 4 hours and a maximum of 48 hours.

To obtain a smooth surface, apply Aviox Clearcoat UVR in one or two coats with 60 minutes of solvent flash-off time in between, depending on the surface appearance (roughness) of the Aviox Advanced Mica layer. For more details check the technical data sheet of Aviox Clearcoat UVR.



Cleaning of Equipment

Use Solvent Cleaning C28/15 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 airflow 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**

|                    |   |
|--------------------|---|
| Surface Dry        | 1.5 – 2 hours   |
| Dry to Tape        | 2 – 15 hours depending on color, activator choice and environmental conditions. |
| Recoatable Maximum | 48 hours  |

Taping directly on a mica coating may result in rough edges after tape removal. To obtain the best results when taping it is advised to apply one layer of Aviox Clearcoat UVR after min 4 hours of drying time. In this case, the dry-to-tape times of the Aviox Clearcoat UVR will be applicable. Aviox Advanced Mica Series as such cannot be abraded if the overcoat window has exceeded or for repairs without compromising the appearance.

If the overcoat window is exceeded activate the surface with aluminum oxide non-woven abrasive material, type very fine, or P320 grade sanding paper before re-applying the Aviox Advanced Mica System.

If it can be foreseen the overcoat window of Aviox Advanced Mica will be exceeded, we advise applying locally one layer of Aviox Clearcoat UVR within the overcoat window (2-48 hours). The Aviox Clearcoat UVR coat can be activated after it exceeds the recoat window without compromising the appearance of the special effect.



Theoretical Coverage

13 m<sup>2</sup> per liter ready to apply material at 40 µm dry film thickness.  
521 ft<sup>2</sup> per US gallon ready to apply material at 1.6 mils dry film thickness.



Dry Film Weight

Depending on the color  
1.18 – 1.35 g/m<sup>2</sup>/µm  
0.0061 – 0.0070 lbs/ft<sup>2</sup>/mil

## Aviox Advanced Mica Series

|  |                                 |   |                            |              |                |              |                 |              |                 |              |
|--|---------------------------------|---|----------------------------|--------------|----------------|--------------|-----------------|--------------|-----------------|--------------|
|  | Volatile Organic Compounds      | Maximum 435g/l<br>Maximum 3.6 lbs/gal   |                            |              |                |              |                 |              |                 |              |
|  | Gloss                           | Not applicable.   |                            |              |                |              |                 |              |                 |              |
|  | Color                           | Any special effect color for any aircraft livery  |                            |              |                |              |                 |              |                 |              |
|  | Flash Point                     | <table border="0"> <tr> <td>Aviox Advanced Mica Series</td> <td>&gt;21°C / 70°F</td> </tr> <tr> <td>Hardener 90150</td> <td>&gt;21°C / 70°F</td> </tr> <tr> <td>Activator 99321</td> <td>&lt;21°C / 70°F</td> </tr> <tr> <td>Activator 99341</td> <td>&lt;21°C / 70°F</td> </tr> </table> | Aviox Advanced Mica Series | >21°C / 70°F | Hardener 90150 | >21°C / 70°F | Activator 99321 | <21°C / 70°F | Activator 99341 | <21°C / 70°F |
| Aviox Advanced Mica Series   | >21°C / 70°F                    |   |                            |              |                |              |                 |              |                 |              |
| Hardener 90150   | >21°C / 70°F                    |   |                            |              |                |              |                 |              |                 |              |
| Activator 99321  | <21°C / 70°F                    |   |                            |              |                |              |                 |              |                 |              |
| Activator 99341  | <21°C / 70°F                    |   |                            |              |                |              |                 |              |                 |              |
|  | Shelf life 5 - 35°C (41 - 95°F) | <table border="0"> <tr> <td>Aviox Advanced Mica Series</td> <td>18 months</td> </tr> <tr> <td>Hardener 90150</td> <td>24 months</td> </tr> <tr> <td>Activator 99321</td> <td>36 months</td> </tr> <tr> <td>Activator 99341</td> <td>36 months</td> </tr> </table>                         | Aviox Advanced Mica Series | 18 months    | Hardener 90150 | 24 months    | Activator 99321 | 36 months    | Activator 99341 | 36 months    |
| Aviox Advanced Mica Series   | 18 months                       |   |                            |              |                |              |                 |              |                 |              |
| Hardener 90150   | 24 months                       |   |                            |              |                |              |                 |              |                 |              |
| Activator 99321  | 36 months                       |   |                            |              |                |              |                 |              |                 |              |
| Activator 99341  | 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 2023 (supersedes December 2021) - 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