

# Adhesive PFA (perfluoroalkoxy) Resin Product Information

**Fluon+™ PFA EA-2000** is an adhesive PFA (perfluoroalkoxy) resin. This unique PFA material has been functionalized to facilitate adhesion to other materials, such as glass (borosilicate glass, glass cloth, etc), polyamide/polyimide, and various metals such as copper.

This grade is semi-commercialized and is available upon request. The material is supplied in the form of pellets, powder or aqueous dispersion (named JBV-301, R&D sample):



Aqueous dispersion (JBV-301)



Powder



Pellets

- Solvent: Water (pH 7-10)
- Powder content [wt%]: 40
- Viscosity (60rpm) [mPa·sec]: <50
- Average particle size D50 [μm]: <4
- Particle size D90 [μm]: <7

Two powder grades:

- **EA-2000 PW50**  
20–50μm (Mean particle size, D50)
- **EA-2000 PW10**  
2–3μm (Mean particle size, D50)

## Typical Physical Properties

Property	Units	Test Method	Fluon+™ EA-2000 (Adhesive PFA)	Fluon® PFA P-63 (Standard PFA)
Melt Flow Rate	g/10 min	ASTM D-3307	10 – 25	7 – 18
Specific Gravity	-	ASTM D-792	2.13	2.12 – 2.17
Melt Point	°C	DSC	300	305 – 315
Initial Decomposition Temperature	°C	TGA	490	500
Tensile Strength	MPa	ASTM D-638	36	32
Tensile Elongation	%	ASTM D-638	330	410
Flexural Modulus	MPa	ASTM D-790	580	628
MIT	cycles	-	1.0 x 10 <sup>5</sup>	2.5 x 10 <sup>4</sup>
Dielectric Constant	-	ASTM D-150 1GHz	2.1	2.1
Dielectric Tangent	-	ASTM D-150 1GHz	< 0.002	< 0.002

\* The above values represent typical data and are not to be used as specification limits.

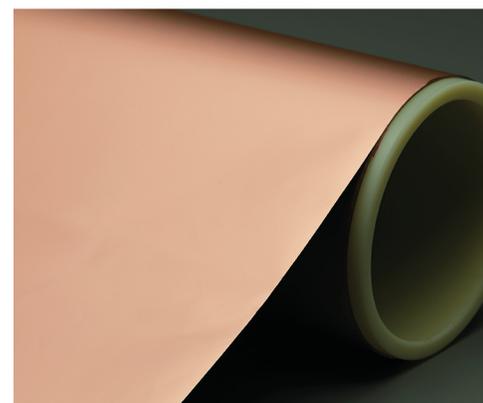
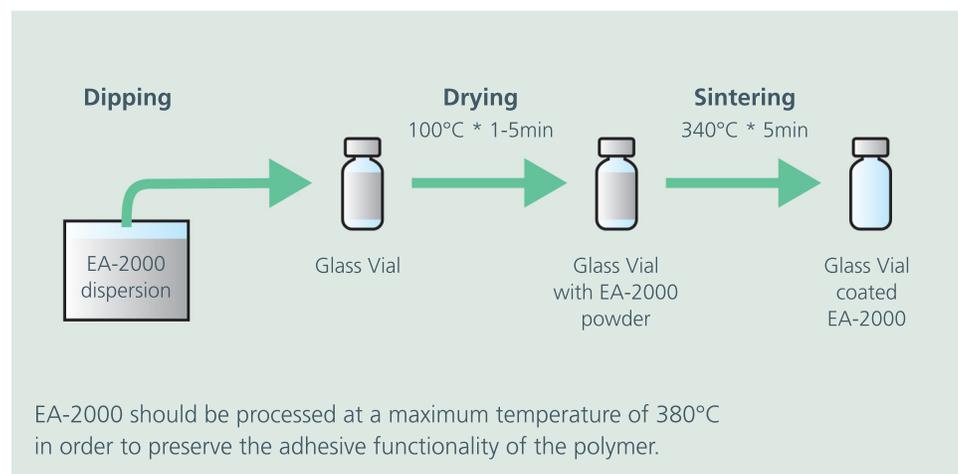


## End Uses

The ability of EA-2000 to be co-extruded or coated makes it an excellent candidate for glass packaging as a high performance coating material for collision resistance and protection. It can also be used for CFRTP materials as a matrix resin and also a sizing agent of carbon fiber, metal laminates, or other applications where multiple materials are required. EA-2000 also has excellent water and oil repellency and superior weather resistance.

## Processing

EA-2000 can be processed by conventional melt processes such as extrusion or injection molding. This product can be co-extruded or co-laminated with appropriately matched materials. As for its dispersion, an example process is as follows.



Copper Foil Laminate + PFA EA-2000

## Handling Precautions

Heating Fluon® and Fluon+™ products in excess of 750°F (399°C) can produce toxic fumes. It is, therefore, necessary to provide local exhaust ventilation in areas where these products are exposed to high temperatures. Avoid breathing fumes or contaminating smoking tobacco with powder, dust. Thermal decomposition of this product will generate hydrogen fluoride, which is corrosive. Corrosion resistance materials are required for prolonged contact with molten resin.

## Safe Handling Information

A summary of the hazards, as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200 for this product are: Physical hazards: None, Health hazards: None FOR ADDITIONAL INFORMATION AND HANDLING INSTRUCTIONS READ AGC CHEMICALS AMERICAS, INC. SAFETY DATA SHEET.



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