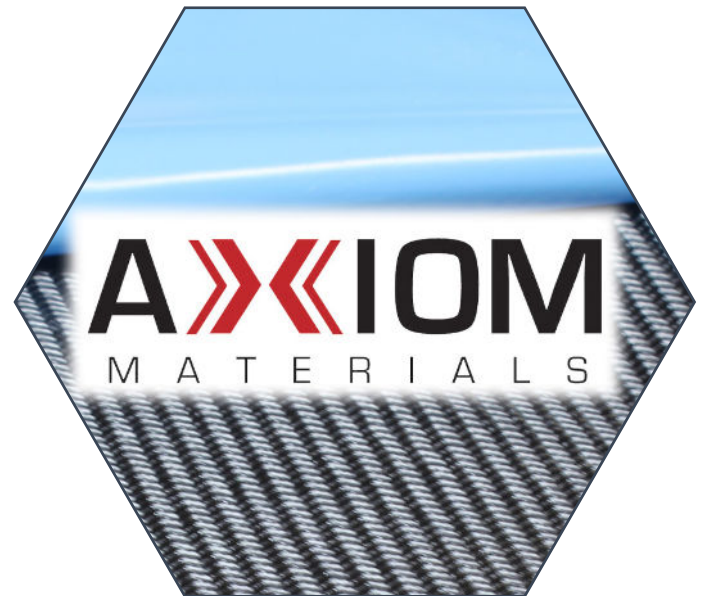




## **AXIOM AX-5204 UV STABLE COSMETICALLY CLEAR - EPOXY FIBER FABRIC 2X2 TWILL PREPREG (VARIABLE TEMPERATURE CURE) MODEL #: G-1835-50-501D-42-M-C-D**

AX-5204 is a variable temperature curing epoxy carbon prepreg designed to achieve high clarity along with UV stability using vacuum bag oven or autoclave cure cycles. The prepreg system is ideal for multi-ply laminates requiring an extra high quality cosmetic surface and also subject to degradation from ultraviolet light. Parts built with AX-5204 are protected against the long-term degradation effects from UV as well as resistance to water and common industrial fluids. The service temperature envelope for AX-5204 is -67°(-55°C) to 250°F (121°C). AX-5204 is available on virtually all woven carbon fabric styles (e.g. 282, 284, 670, 48193, 48370, etc.) and at virtually any requested resin content.



### **STANDARD RESIN CONTENT:**

- 44% by weight (284 style/ 3K 2x2 twill)
- Standard tack: Medium
- Coating: OST (Double-sided tack)

### **TYPICAL APPLICATIONS**

- UV stable and resistant parts
- High clarity, void-free, smooth surface
- High toughness / strength composite
- laminates - vacuum bag
- Automotive parts and components with a “show-room” surface
- Aerospace parts & components with no fill
- and fair required
- High surface quality sporting goods



## AXIOM AX-5204 UV STABLE COSMETICALLY CLEAR - EPOXY FIBER FABRIC 2X2 TWILL PREPREG (VARIABLE TEMPERATURE CURE) MODEL #: G-1835-50-501D-42-M-C-D

### RECOMMENDED CURE CYCLES CURE CONSIDERATIONS

Optimum properties are achieved with the following cycles (based on part temperature):

Apply vacuum pressure >22 in. Hg or desired autoclave pressure and cure according to one of the following cycles:

- 8 hours at 180°F (82°C)
- 2 hours at 225°F (107°C)
- 45 minutes at 250°F (121°C)

### CURE CONSIDERATIONS

- Temperature heat up and cool down
- under pressure is recommended.
- Suggested ramp rate is 2-5°F / minute.
- This prepreg is vacuum-bag, platen
- press, and autoclave compatible.
- For a 225°F (107°C) cure the service
- temperature envelope is -67°F (-55°C) to
- 250°F (121°C).

### AVERAGE PROPERTIES<sup>1</sup>

PROPERTY	TEST METHOD	TEST TEMP.	AVG VALUE
Glass transition temperature	ASTM D5279	Range	264°F (129°C)
Cured ply thickness	Ball micrometer	75°F (24°C)	0.0085" (0.22 mm)
Tensile strength	ASTM D3039	75°F (24°C)	104 ksi (717 MPa)
0° Flexural Strength	274 ksi	75°F (24°C)	98 ksi (676 MPa)
0° Flexural Modulus	18.4 Msi	75°F (24°C)	120 ksi (827 MPa)

<sup>1</sup>Tested on a 12 ply laminate AX-5204-284 cured 2 hrs at 225°F (107°C) under vacuum pressure.



## **AXIOM AX-5204 UV STABLE COSMETICALLY CLEAR - EPOXY FIBER FABRIC 2X2 TWILL PREPREG (VARIABLE TEMPERATURE CURE) MODEL #: G-1835-50-501D-42-M-C-D**

### **STORAGE REQUIREMENTS**

Shelf life is 6 months from date of shipment when stored at 40°F (4°C) or below.

Working life is 14 days at ambient temperatures (75°F).

### **HANDLING & SAFETY INSTRUCTIONS STORAGE REQUIREMENTS**

- Store prepreg suspended horizontally to avoid flat spots and thinning under the weight of the roll.
- Allow product sufficient time (4-6 hours) to reach ambient temperatures after removal from cold storage to prevent condensation on the adhesive surface.
- Use the appropriate safety equipment for this product.
- Refer to the AX-5204 Material Safety Data Sheet for specific safety instructions.

Information and data included in this data sheet is considered to be accurate and reliable to the best of our knowledge however it is not guaranteed to be so. It is the user/buyer's responsibility to determine for themselves the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. Composite Envisions make no representations or warranties as to the results to be obtained in using any material. As Composite Envisions cannot foresee all conditions under which products will be used, user/buyer waives any claim against Composite Envisions for direct, indirect, consequential, or exemplary damages including without limitation, damage which may incur as a result of user/buyer's use or misuse of the product or the product's failure to perform to any expected performance level.

Composite Envisions LLC  
8450 Development Court  
Wausau, WI 54401 USA  
+1 715-842-0101  
info@compositeenvisions.com  
<https://compositeenvisions.com/>



**COMPOSITE  
ENVISIONS**