High-Performance, Cost-Competitive

JBXA Carbon Tooling

Janicki Proprietary JBXA Tooling

JBXA is a custom modified epoxy resin formulated to provide increased performance at a competitive price. It is a high quality, autoclave cured system with use temperatures up to 360°F. JBXA was researched and developed specifically to beat the performance of conventional epoxy at a lower cost than BMI and Invar materials.

<table>
<thead>
<tr>
<th>Description</th>
<th>CTE</th>
<th>Use Temp</th>
<th>Typical Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBXA High-cycle Carbon Lay-up Mold</td>
<td>1.9x10^-6 in/in/°F</td>
<td>360°F</td>
<td>100+</td>
</tr>
<tr>
<td>JBXA Med-cycle Glass Lay-up Mold</td>
<td>5.5x10^-6 in/in/°F</td>
<td>360°F</td>
<td>50+</td>
</tr>
</tbody>
</table>

JBXA Material for Space and Military

JBXA has a cost advantage over BMI and INVAR. It is offered in multiple configurations to match your program needs. The JBXA prepreg cloth is pliable and conducive to forming complex shapes, such as airfoils, fairings and control surfaces.

- Excellent machined surfaces to high tolerances
- More durable than Epoxy
- Cured at 360°F (445°F Tg)
- Autoclave cured
- Retains vacuum integrity after 100+ cycles
- Long out times allow for very large laminates

JBXA material delivers extraordinary value
Janicki invests in facilities and equipment to optimize fabrication of large and accurate composite and metal tools. Janicki has the capabilities and experience to build production tooling for major OEMs, Tier 1 and Tier 2 suppliers across several industries.

### Capabilities
- Engineering Design & Analysis
- 5-Axis NC Milling (+/- 0.005")
- Large-scale Facilities
- R&D Lab
- Metrology
- Tool leak testing w/ Helium / Autoclave

### Program Experience
- Large collapsible Fuselage Mandrels for Aerospace OEM
- Complex Wing-to-Body Fairing Tools
- 80ft carbon fiber lay-up mold for a commercial jet wing
- Fuselage molds for UAV
- Long, curving stringer & beam molds
- Fuselage molds for helicopters

### Equipment
- 9 Large 5 Axis CNC Mills (100’ x 20’)
- Machine Shop (4 & 5 Axis Mills & Lathes)
- Ovens (100’ x 24’ x 14’)
- Weld Shop (Certified Welders)
- Water & Plasma Cutter (14’ x 42’)
- Autoclave (12’ x 50’)
- Annealing Furnace (24’ x 72’)
- 25 Ton Overhead Cranes
- Grit Blasting & Paint Booth (60’ x 16’ x 10’)
- 1,100 Ton Forming Press

### Program Experience
- Large collapsible Fuselage Mandrels for Aerospace OEM
- Complex Wing-to-Body Fairing Tools
- 80ft carbon fiber lay-up mold for a commercial jet wing
- Fuselage molds for UAV
- Long, curving stringer & beam molds
- Fuselage molds for helicopters

### Equipment
- Large-Scale, Precision 5-Axis NC Mill
- 12’ X 50’ Autoclave

### Our Quality Promise
- Dedicated Continuous Improvement
- Deliver Quality Products
- Exceed Customers’ Requirements

---

Janicki Industries
1476 Moore Street
Sedro-Woolley, WA 98284

360.856.5143
888.856.5143 toll free

www.janicki.com
info@janicki.com