

Henkel Benzoxazine Resin 99120

Benzoxazine Liquid Infusion Resin



- Outstanding toughness and elongation
- Excellent hot-wet performance
- Processable in Vacuum Assist Resin Transfer Molding (VARTM)
- Room temperature storage and shipping
- Broad process window
- Very low exotherm compared to epoxy resins

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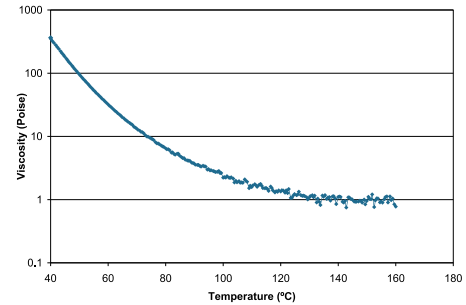
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Features & Benefits:

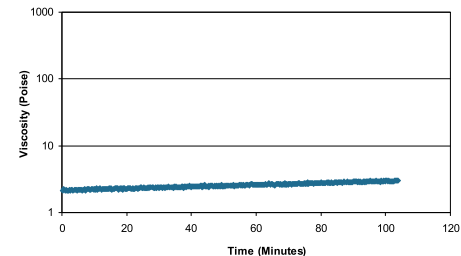
- High resin toughness – Good damage tolerance without toughening agents, excellent microcrack resistance
- High hot / wet property retention – Higher service temperature to enable a wide range of aircraft applications
- Low viscosity – Suitable for VARTM processing
- Room temperature stability – Can be stored for 6-months at room temperature or over 12-months at -18 °C / 0 °F
- Low resin reactivity – Approved for air shipment
- One-part system – No mixing is required
- Broad processing window – Suitable for large parts and intricate shapes
- Viscosity stability – Long injection window for large parts
- Low heat release during cure – Allows manufacture of large parts, lowers residual stresses, improved safety
- Improved UV resistance – No discoloration compared to epoxies

Processing:

Viscosity Profile of Henkel Benzoxazine Resin 99120 Heat-up Rate 4 °F / min (2 °C / min)



Isothermal Viscosity of Henkel Benzoxazine Resin 99120 at 230 °F (110 °C)



Product Details:

Product Nature	One-part Benzoxazine Resin	
Storage Time	6 months minimum at room temperature	
Application	VARTM, RTM	
Cured Resin (cured at 356 °F / 180 °C for 90 min)	Density	1.21 g / cm ³
	Tg Onset Dry	370 °F / 188 °C
	Tg Onset – 72-hours boiling water	293 °F / 145 °C
	Flexural Strength	21.2 ksi / 146 MPa
	Flexural Modulus	0.51 Msi / 3.5 GPa
Composite Properties: Standard Modulus Carbon Fiber/ Unidirectional Fabric (cured at 356 °F / 180 °C for 90 min)	G _{1c}	2.7 in-lb/in ² / 472 J/m ²
	0° Compression Strength	185 ksi / 1276 MPa
	0° Compression Modulus	18.2 ksi / 125 GPa
	Interlaminar Shear Strength	12.7 ksi / 88 MPa
	Open-hole Compression Strength	46.2 ksi / 319 MPa
	Interlaminar Fracture Toughness G _{1c}	4.2 in-lb/in ² / 736 J/m ²

The data contained herein are intended as reference only. Please contact Henkel Technical Support Group for assistance and recommendation on specifications for these products.



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