

Valiant® PEI-VAT002

Description			
PEI-VAT002 is an unreinforced amorphous polyetherimide (PEI) resin that may offer a high glass transition temperature (Tg) of 217°C. Features are excellent mechanical, electrical and dimensional properties up to high temperatures.			
Physical Properties	Units	Test Standard	Value
Density	g/cm ³	ISO 1183	1.27
Melt Flow Rate (337°C/6.6kg)	g/10min	ASTM D1238	6-10
Mold Shrinkage	%	ISO 2577, 294-4	0.5-0.7
Mechanical Properties			
Tensile Stress	Mpa	ASTM D638	110
Tensile Modulus	MPa	ASTM D638	3400
Elongation at Break	%	ASTM D638	55
Flexural Strength	Mpa	ASTM D790	150
Flexural Modulus	Mpa	ASTM D790	2800
Notched Impact Strength	kJ/m ²	GB/T1843	7.0
Thermal Properties			
HDT 1.82Mpa	°C	ASTM D648	200
CLTE (MD/TD)	ppm/K	ASTM E831-19	48/51
Glass Transition Temp.	°C	GB/T19466.2-2004	217
Electrical Properties			
Dielectric Strength (Oil, 1.6mm)	KV/mm	IEC 60243-1	21.1
Dielectric Constant (1KHz)		IEC 60250	3.1
Dielectric Constant (5GHz)		IEC 60250	3.0
Dielectric Constant (10GHz)		IEC 60250	2.7
Dissipation Factor (1KHz)		IEC 60250	0.0017
Dissipation Factor (5GHz)		IEC 60250	0.0070
Dissipation Factor (10GHz)		IEC 60250	0.0074
Volume Resistivity	Ω·cm	IEC 60093	10 ¹⁶
Surface Resistivity	Ω	IEC 60093	> 10 ¹⁶
Injection Molding			
Pre-Dry Temp/Time	°C/h		160/ (4-6)
Mold Temp.	°C		130-180
Nozzle Temp.	°C		330-400
Front Temp.	°C		345-400
Middle Temp.	°C		340-400
Rear Temp.	°C		325-400
Disclaimer			
Please refer to Material Safety Data before using this product. The information contained in this data sheet is based on tests of research of Valiant Co., Ltd. The user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Valiant no warranty is given concerning the accuracy or completeness thereof.			