EXTEM™ RESIN XH2115

DESCRIPTION

EXTEM XH2115 resin is a HIGH FLOW, 10% glass fiber reinforced, amorphous Polyimide (PI) resin, with high glass transition temperature (Tg = 265 °C). Features include excellent mechanical, electrical and dimensional properties at low and high temperatures. EXTEM™ XH2115 can withstand SMT soldering temperatures up to 245 °C. The material may offer good chemical resistance for an amorphous material and is inherently flame retardant. This material is RoHS compliant.

GENERAL INFORMATION	
Features	Flame Retardant, Chemical Resistance, Good Processability, High Flow, Low Warpage, Low Smoke and Toxicity, Thin Wall, Dielectrics, Low Shrinkage, Electroplatable, Creep resistant, Dimensional stability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyimide (PI)
Processing Techniques	Injection Molding, Extrusion, Compression molding

INDUSTRY	SUB INDUSTRY
Automotive	Heavy Truck, Automotive Under the Hood, Aerospace, Motorcycle, Recreational/Specialty Vehicles
Electrical and Electronics	Energy Management, Drone Solutions, Circuit Boards/Additives, Lighting, Printer Copier, Wireless Communication
Hydrocarbon and Energy	Electric Vehicle
Industrial	Electrical, Material Handling, Textile, Eyewear

TYPICAL PROPERTY VALUES

Revision 20250606

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	100	MPa	ASTM D638
Tensile Strain, break	3	%	ASTM D638
Tensile Modulus, 5 mm/min	4000	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	140	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	140	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4100	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	4300	MPa	ISO 527
Flexural Strength, 2 mm/min	140	MPa	ISO 178
Flexural Strain, break, 2 mm/min	2	%	ISO 178
Flexural Modulus, 2 mm/min	4300	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	30	J/m	ASTM D256
Izod Impact, Reverse Notched, 3.2 mm	250	J/m	ASTM D256
Izod Impact, notched 80*10*3 +23°C	3	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	240	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 6.4 mm, unannealed	250	°C	ASTM D648
Vicat Softening Temp, Rate A/50	263	°C	ISO 306
Vicat Softening Temp, Rate B/120	250	°C	ISO 306
PHYSICAL [1]			
Specific Gravity	1.38	-	ASTM D792
Melt Flow Rate, 367°C/6.6 kgf	16	g/10 min	ASTM D1238
Melt Volume Rate, MVR at 400°C/10.0 kg	18	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 360°C/2.16 kg	13	cm³/10 min	ISO 1133
THERMAL PROPERTIES			
Vicat Softening Point, (Rate A/50°C) [1]	260	°C	ASTM D1525
INJECTION MOLDING [2]			
Drying Temperature	175	°C	
Drying Time (Cumulative)	4 – 6	Hrs	
Maximum Moisture Content	.02	%	
Melt Temperature	380 – 410	°C	
Nozzle Temperature	375 – 405	°C	
Front - Zone 3 Temperature	380 – 410	°C	
Middle - Zone 2 Temperature	370 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Mold Temperature	160 – 200	°C	
Back Pressure	.3 – .9	MPa	
Shot to Cylinder Size	40 – 70	%	
Vent Depth	0.025 – 0.076	mm	
Screw speed (Circumferential speed)	0.15 – 0.25	m/s	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding

DISCLAIMER