EXTEM™ XH1005 resin

Thermoplastic Polyimide

SABIC Innovative Plastics

Message:

High Heat Amorphous TPI Blend, Tg 267C, High Continuous Use Temperature (CUT), Excellent FR, OSU and LOI. Material is UL listed. This material is RoHS compliant and also halogen free according VDE/DIN 472 part 815. Resin is subject to export control restrictions under both U.S. 15 CFR 774 and Annex I of Reg. (EC) 428/2009 as ECCN 1C008. Diversion contrary to law is prohibited. Also UL rated 94V0 at 1.3mm and 3.0mm.

General Information			
UL YellowCard	E121562-100051197		
Features	Heat resistance, high amorphous Halogen-free Flame retardancy		
Agency Ratings	DIN VDE 0472 part 815		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.31	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (367°C/6.6 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	1.0 - 1.2	%	Internal method
Water Absorption			
23°C, 24 hr [1]	0.60	%	ASTM D570
Saturated, 23°C	2.3	%	ISO 62
Equilibrium, 23°C, 50% RH	0.0	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [2]	3420	MPa	ASTM D638
--	3160	MPa	ISO 527-2/1
Tensile Strength			
Yield [3]	103	MPa	ASTM D638
Yield	101	MPa	ISO 527-2/5
Fracture [4]	96.0	MPa	ASTM D638
Fracture	70.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield [5]	7.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/5
Fracture [6]	15	%	ASTM D638
Fracture	6.0	%	ISO 527-2/5
Flexural Modulus			
50.0mm span [7]	3130	MPa	ASTM D790

-- [8]	2850	MPa	ISO 178
Flexural Stress			
--	150	MPa	ISO 178
Yield, 50.0mm span [9]	168	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [10] (23°C)	21	kJ/m²	ISO 179/1eA
Notched Izod Impact			
23°C	43	J/m	ASTM D256
23°C [11]	4.4	kJ/m²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	20.7	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	250	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	235	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	237	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [12]	225	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	260	°C	ASTM D1525 [13]
--	253	°C	ISO 306/B50
--	252	°C	ISO 306/B120
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 150°C	5.0E-5	cm/cm/°C	ISO 11359-2
Horizontal: 23 to 150°C	5.1E-5	cm/cm/°C	ISO 11359-2
Flammability	**Nominal Value**		**Test Method**
Flame Rating (0.75 mm)	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	175	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 70	%	
Rear Temperature	360 - 385	°C	
Middle Temperature	370 - 400	°C	
Front Temperature	380 - 410	°C	
Nozzle Temperature	375 - 405	°C	
Processing (Melt) Temp	380 - 410	°C	
Mold Temperature	150 - 175	°C	
Back Pressure	0.300 - 0.700	MPa	
Screw Speed	70 - 100	rpm	
Vent Depth	0.025 - 0.076	mm	
NOTE			

1.	Results measured at 48 hrs
2.	5.0 mm/min
3.	Type 1, 5.0 mm/min
4.	Type 1, 5.0 mm/min
5.	Type 1, 5.0 mm/min
6.	Type 1, 5.0 mm/min
7.	1.3 mm/min
8.	2.0 mm/min
9.	1.3 mm/min
10.	80*10*4 sp=62mm
11.	80*10*4
12.	80*10*4 mm
13.	标准 B (120°C/h), 载荷2 (50N)

Recommended distributors for this material

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