

EXTEM™ UH1006M resin

Thermoplastic Polyimide

SABIC Innovative Plastics Europe

Message:

High heat amorphous TPI Blend, Chemical Resistant

General Information			
Features	Amorphous		
	Good Chemical Resistance		
	High Heat Resistance		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (400°C/6.6 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.80 to 1.0	%	Internal Method
Water Absorption ¹ (23°C, 24 hr)	0.60	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	3800	MPa	ASTM D638
--	3500	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	120	MPa	ASTM D638
Yield	112	MPa	ISO 527-2/5
Break ⁴	110	MPa	ASTM D638
Break	105	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁵	9.0	%	ASTM D638
Yield	9.0	%	ISO 527-2/5
Break ⁶	20	%	ASTM D638
Break	19	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁷	3520	MPa	ASTM D790
-- ⁸	3000	MPa	ISO 178
Flexural Stress			
--	154	MPa	ISO 178
Yield, 50.0 mm Span ⁹	175	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	20	kJ/m ²	ISO 179/2C

Notched Izod Impact			
23°C	75	J/m	ASTM D256
23°C ¹⁰	10	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	263	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	240	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	232	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	257	°C	ASTM D1525 ¹²
--	262	°C	ISO 306/B50
--	263	°C	ISO 306/B120
CLTE			ASTM E831
Flow : 23 to 150°C	4.6E-5	cm/cm/°C	
Transverse : 23 to 150°C	4.7E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	175	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 70	%	
Rear Temperature	380 to 390	°C	
Middle Temperature	390 to 405	°C	
Front Temperature	395 to 415	°C	
Nozzle Temperature	395 to 415	°C	
Processing (Melt) Temp	400 to 415	°C	
Mold Temperature	150 to 175	°C	
Back Pressure	0.300 to 0.700	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	Results measured at 48 hrs		
2.	5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	Type I, 5.0 mm/min		
7.	1.3 mm/min		
8.	2.0 mm/min		
9.	1.3 mm/min		
10.	80*10*4		
11.	80*10*4 mm		

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