LNP™ THERMOCOMP™ COMPOUND LF006EX1

DESCRIPTION

LNP™ THERMOCOMP™ LF006EX1 is a compound based on Polyetheretherketone resin containing 30% Glass Fiber. Added features of this material include: low warpage, easy Molding.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	171	MPa	ASTM D 638
Tensile Strain, break	1.98	%	ASTM D 638
Tensile Modulus, 5 mm/min	12280	MPa	ASTM D 638
Flexural Stress	235	MPa	ASTM D 790
Flexural modulus	10100	MPa	ASTM D 790
Tensile Stress, break	164	MPa	ISO 527
Tensile Strain, break	1.87	%	ISO 527
Tensile Modulus, 1 mm/min	11820	MPa	ISO 527
Flexural Stress	225	MPa	ISO 178
Flexural Modulus	10183	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	732	J/m	ASTM D 4812
Izod Impact, notched, 23°C	95	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	47.14	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	46	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	10	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	336	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	321	°C	ASTM D 648
CTE, -40°C to 120°C, flow	2.23E-5	1/°C	ASTM E 831
CTE, -40°C to 120°C, xflow	4.10E-05	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	333	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	309	°C	ISO 75/Af
PHYSICAL			
Moisture Absorption, 50% RH, 24 hrs	0.037	%	ASTM D 570
Specific Gravity	1.536	-	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.43	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.65	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.088	%	ISO 62
Density	1.532	g/cm³	ASTM D 792
ELECTRICAL			
Dielectric Constant, 1.1 GHz	3.82	-	SABIC method
Dielectric Constant, 1.9 GHz	3.84	-	SABIC method
Dissipation Factor, 1.1 GHz	0.0039	-	SABIC method

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dissipation Factor, 1.9 GHz	0.0041	-	SABIC method
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	hrs	
Front - Zone 3 Temperature	380 – 400	°C	
Middle - Zone 2 Temperature	380 – 400	°C	
Rear - Zone 1 Temperature	370 – 380	°C	
Mold Temperature	175 – 190	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

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