LNP™ THERMOCOMP™ COMPOUND OF008IXQ

DESCRIPTION

LNP THERMOCOMP OF008IXQ compound is a 40% glass fiber reinforced polyphenylene sulfide. Added feature of this material include: Impact modified, high heat resistance and chemical resistance.

GENERAL INFORMATION	
Features	High stiffness/Strength, High temperature resistance, Impact resistant
Fillers	Glass Fiber
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Heavy Truck, Automotive Under the Hood
Building and Construction	Water Management
Electrical and Electronics	Energy Management
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20260807

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	172	MPa	ASTM D638
Tensile Strain, Break			
Type I, 5 mm/min	2.4	%	ASTM D638
5 mm/min	2.3	%	ISO 527
Tensile Modulus, 5 mm/min	13000	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	243	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	11900	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	175	MPa	ISO 527
Tensile Modulus, 1 mm/min	13200	MPa	ISO 527
Flexural Strength, 2 mm/min	250	MPa	ISO 178
Flexural Modulus, 2 mm/min	12000	MPa	ISO 178
IMPACT [1]			
Izod impact, notched			
23°C	150	J/m	ASTM D256
80*10*4 +23°C	15	kJ/m²	ISO 180/1A
80*10*4 0°C	13.5	kJ/m²	ISO 180/1A
Izod Impact, Unnotched			
23°C	800	J/m	ASTM D4812
80*10*4 +23°C	56	kJ/m²	ISO 180/1U
80*10*4 0°C	54	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14.5	kJ/m²	ISO 179/1eA

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	55	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	278	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	267	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	268	°C	ISO 75/Af
CTE			
-40°C to 90°C, flow	1.4E-5	1/°C	ASTM E831
-40°C to 90°C, xflow	5.0E-5	1/°C	ASTM E831
-40°C to 40°C, flow	1.3E-5	1/°C	ISO 11359-2
-40°C to 40°C, xflow	4.2E-5	1/°C	ISO 11359-2
-40°C to 90°C, flow	1.4E-5	1/°C	ISO 11359-2
-40°C to 90°C, xflow	5.2E-5	1/°C	ISO 11359-2
PHYSICAL [1]			
Specific Gravity	1.59	-	ASTM D792
Melt Flow Rate			
315°C/5.0 kgf	22	g/10 min	ASTM D1238
Melt Volume Rate			
315°C/5.0 kg	14	cm³/10 min	ISO 1133
Water Absorption, (23°C/24hrs)	0.05	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.02	%	ISO 62-4
Mold Shrinkage, flow	0.2	%	SABIC method
Mold Shrinkage, xflow [2]	0.5 – 0.6	%	SABIC method
ELECTRICAL [1]			
Surface Resistivity	>1.E+15	Ω	ASTM D257
Volume Resistivity	>1.E+15	Ω.cm	ASTM D257
Dielectric Constant			
1.9 GHz	3.85	-	SABIC method
5 GHz	3.84	-	SABIC method
Dissipation Factor			
1.9 GHz	0.0048	-	SABIC method
5 GHz	0.0056	-	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	120 – 140	°C	
Drying Time	3 – 4	Hrs	
Melt Temperature	310 – 330	°C	
Nozzle Temperature	310 – 330	°C	
Front - Zone 3 Temperature	310 – 330	°C	
Middle - Zone 2 Temperature	300 – 320	°C	
Rear - Zone 1 Temperature	290 – 310	°C	
Mold Temperature	135 – 160	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	

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(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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) 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.

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