LNP™ THERMOCOMP™ COMPOUND OFC08XXP

DESCRIPTION

LNP THERMOCOMP OFC08XXP compound is a 40% glass fiber reinforced polyphenylene sulfide. Added feature of this material include: High stiffness/strength, High flow, Low warpage, Impact resistant, Chemical resistance.

GENERAL INFORMATION	
Features	Chemical Resistance, High Flow, Low Warpage, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries, Automotive Under the Hood
Electrical and Electronics	Energy Management
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20260416

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	190	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.0	%	ASTM D638
Tensile Modulus, 5 mm/min	15400	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	270	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	13800	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	190	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	15500	MPa	ISO 527
Flexural Strength, 2 mm/min	270	MPa	ISO 178
Flexural Modulus, 2 mm/min	14000	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	128	J/m	ASTM D256
Izod Impact, unnotched, 23°C	650	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	13	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	53	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	266	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	267	°C	ISO 75/Af
CTE			
-40°C to 90°C, flow	1.5E-5	1/°C	ASTM E831
-40°C to 90°C, xflow	4.5E-5	1/°C	ASTM E831
-40°C to 40°C, flow	1.5E-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	1.6E-5	1/°C	ISO 11359-2
-40°C to 90°C, xflow	4.5E-5	1/°C	ISO 11359-2
-40°C to 125°C, flow	1.6E-5	1/°C	ISO 11359-2
-40°C to 125°C, xflow	5.0E-5	1/°C	ISO 11359-2
PHYSICAL (1)			
Specific Gravity	1.66	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.02	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.01	%	ISO 62-4
Melt Flow Rate			
315°C/5.0 kgf	64	g/10 min	ASTM D1238
Mold Shrinkage, flow (2)	0.2 – 0.3	%	SABIC method
Mold Shrinkage, xflow (2)	0.4 – 0.5	%	SABIC method
ELECTRICAL (1)			
Dielectric Constant			
1.9 GHz	4.0	-	SABIC method
5 GHz	4.0	-	SABIC method
Dissipation Factor			
1.9 GHz	0.0042	-	SABIC method
5 GHz	0.0045	-	SABIC method
INJECTION MOLDING (3)			
Drying Temperature	120 – 140	°C	
Drying Time	3 – 4	Hrs	
Hopper Temperature	50 – 70	°C	
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	

(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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