LNP™ THERMOTUF™ Compound OF006IXQ

DESCRIPTION

LNP THERMOTUF OF006IXQ compound is based on linear Polyphenylene Sulfide (PPS) resin containing 30% glass fiber. Added features include: Impact Modified, High Heat Resistance and Chemical Resistance.

GENERAL INFORMATION	
Features	Chemical Resistance, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20260421

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	150	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Modulus, 5 mm/min	10000	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	220	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9400	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	150	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	10100	MPa	ISO 527
Flexural Strength, 2 mm/min	220	MPa	ISO 178
Flexural Modulus, 2 mm/min	9300	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	156	J/m	ASTM D256
Izod Impact, unnotched, 23°C	820	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	55	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m²	ISO 179/1eA
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	275	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	260	°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	260	°C	ISO 75/Af
CTE			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
-40°C to 90°C, flow	1.3E-5	1/°C	ASTM E831
-40°C to 90°C, xflow	5.3E-5	1/°C	ASTM E831
-40°C to 40°C, flow	1.2E-5	1/°C	ISO 11359-2
-40°C to 40°C, xflow	4.7E-5	1/°C	ISO 11359-2
-40°C to 90°C, flow	1.3E-5	1/°C	ISO 11359-2
-40°C to 90°C, xflow	5.2E-5	1/°C	ISO 11359-2
Relative Temp Index, Elec [2]	130	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	130	°C	UL 746B
PHYSICAL [1]			
Melt Flow Rate			
315°C/5.0 kgf	21	g/10 min	ASTM D1238
Melt Volume Rate			
315°C/5.0 kg	14	cm³/10 min	ISO 1133
Specific Gravity	1.51	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24hrs)	0.02	%	ISO 62-4
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.02	%	ISO 62-4
Water Absorption, (23°C/24hrs)	0.05	%	ISO 62-1
Mold Shrinkage, flow [3]	0.2	%	SABIC method
Mold Shrinkage, xflow [3]	0.6	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104555950	-	-
UL Recognized, 94V-1 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥3.0	mm	UL 94
UV-light, water exposure/immersion	f1	-	UL 746C
INJECTION MOLDING [4]			
Drying Temperature	120 – 140	°C	
Drying Time	3 – 5	Hrs	
Hopper Temperature	50 – 70	°C	
Melt Temperature	310 – 330	°C	
Front - Zone 3 Temperature	310 – 330	°C	
Middle - Zone 2 Temperature	310 – 330	°C	
Rear - Zone 1 Temperature	290 – 320	°C	
Mold Temperature	130 – 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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) 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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