LNP™ THERMOTUF™ COMPOUND DF004PSI

DESCRIPTION

Glass Reinforced Polycarbonate. High Flow Ductile, High Chemical Resistance

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	99	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	6100	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	147	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5380	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	99	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	5960	MPa	ISO 527
IMPACT			
Charpy Impact, unnotched, 23°C	48	kJ/m²	ISO 179/2C
Izod Impact, unnotched, 23°C	627	J/m	ASTM D 4812
Izod Impact, notched, 23°C	160	J/m	ASTM D 256
Charpy Impact, notched, 23°C	16	kJ/m²	ISO 179/2C
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	130	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	126	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.E-05	1/°C	ASTM E 831
Relative Temp Index, Elec [1]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	80	°C	UL 746B
PHYSICAL			
Density	1.33	g/cm³	ASTM D 792
Mold Shrinkage, flow	0.3 – 0.5	%	SABIC method
Mold Shrinkage, xflow	0.3 – 0.5	%	SABIC method
Melt Volume Rate, MVR at 300°C/1.2 kg	10	cm³/10 min	ASTM D 1238
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-102475264	-	-
UL Recognized, 94HB Flame Class Rating	0.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	285 – 310	°C	
Nozzle Temperature	285 – 305	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	50 – 90	rpm	

(1) 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.

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