LNP™ THERMOCOMP™ COMPOUND WF0039U

WF-1003 FR-S UV

DESCRIPTION

LNP THERMOCOMP WF0039U is a compound based on PBT resin containing 15% Glass Fiber. Added features of this grade include: Flame Retardant and UV Stabilized.

TYPICAL PROPERTY VALUES

Revision 20200108

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	95	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	7240	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	137	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6060	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	95	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	7080	MPa	ISO 527
Flexural Stress	145	MPa	ISO 178
Flexural Modulus, 2 mm/min	6360	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	342	J/m	ASTM D 4812
Izod Impact, notched, 23°C	48	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	4	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	19	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	215	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	194	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.23E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.07E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Af
PHYSICAL			
Density	1.58	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.05	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.5 – 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Density	1.57	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-101358192	-	-
UL Recognized, 94V-0 Flame Class Rating	0.73	mm	UL 94

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	245 – 260	°C	
Front - Zone 3 Temperature	250 – 260	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	230 – 245	°C	
Mold Temperature	80 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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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