LNP™ THERMOCOMP™ COMPOUND RF0057EI

DESCRIPTION

LNP THERMOCOMP RF0057EI compound is based on Nylon 6/6 resin containing 25% glass fiber. Added features of this grade include: Non-brominated & Non-Chlorinated Flame Retardant.

GENERAL INFORMATION	
Features	Non Cl/Br flame retardant, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries, Recreational/Specialty Vehicles
Building and Construction	Building Component
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 50 mm/min	121	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	3.3	%	ASTM D638
Tensile Modulus, 50 mm/min	10200	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	8100	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	190	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	123	MPa	ISO 527
Tensile Strain, break, 50 mm/min	3.1	%	ISO 527
Tensile Modulus, 1 mm/min	10250	MPa	ISO 527
Flexural Strength, 2 mm/min	193	MPa	ISO 178
Flexural Modulus, 2 mm/min	8280	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	90	J/m	ASTM D256
Izod Impact, unnotched, 23°C	820	J/m	ASTM D4812
Izod Impact, notched 80*10*3 +23°C	9.6	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*3 +23°C	51	kJ/m²	ISO 180/1U
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	254	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	232	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	255	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	230	°C	ISO 75/Af
PHYSICAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Gravity	1.43	-	ASTM D792
Melt Flow Rate, 270°C/1.2 kgf	4.8	g/10 min	ASTM D1238
Water Absorption, (23°C/24hrs)	0.55	%	ISO 62-1
Mold Shrinkage, flow (2)	0.15 – 0.4	%	SABIC method
Mold Shrinkage, xflow (2)	0.9 – 1.2	%	SABIC method
ELECTRICAL (3)			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS (3)			
UL Yellow Card Link	E207780-104701351	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	85	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.4 – 0.8	%	
Melt Temperature	260 – 280	°C	
Nozzle Temperature	260 – 280	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	60 – 100	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	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) 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.

(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.

DISCLAIMER