LNP™ THERMOCOMP™ COMPOUND RF0057E

RF-1005 Z270
REGION ASIA

DESCRIPTION

LNP* THERMOCOMP* RF0057E is a compound based on Nylon 66 resin containing Glass Fiber, Flame Retardant. Added features of this material include: Non-Brominated & Non-Chlorinated Flame Retardant.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break, 5 mm/min	130	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	9400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	190	MPa	ISO 178
Flexural Modulus, 2 mm/min	8000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL			
Ball Pressure Test, approximate maximum	240	°C	IEC 60695-10-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	240	°C	ISO 75/Af
Relative Temp Index, Elec	140	°C	UL 746B
Relative Temp Index, Mech w/impact	110	°C	UL 746B
Relative Temp Index, Mech w/o impact	140	°C	UL 746B
PHYSICAL			
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ISO 294
Density	1.39	g/cm³	ISO 1183
ELECTRICAL			
Volume Resistivity	1.E+12	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 1.6 mm	16	kV/mm	ASTM D 149
Comparative Tracking Index	600	V	IEC 60112
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥0.4	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.4	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS [(1)]			
UL Yellow Card Link	E207780-101345251	-	-
UL Yellow Card Link 2	E207780-102614475	-	-
UL Recognized, 94-5VA Flame Class Rating	≥0.9	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥0.4	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Glow Wire Ignitability Temperature, 2.0 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.6 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.9 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.8 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.4 mm	775	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 2.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.6 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.8 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.9 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.4 mm	960	°C	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	265 – 275	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	255 – 265	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	60 – 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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