LNP™ THERMOCOMP™ COMPOUND 9X10312

DESCRIPTION

LNP THERMOCOMP 9X10312 compound is based on Nylon blend containing 50% glass fiber. Added features of this grade include: Impact Modified, High Flow, Good Ductility, Low Moisture Absorption.

GENERAL INFORMATION	
Features	High Flow, Low Moisture Absorption, High stiffness/Strength, Impact resistant
Fillers	Glass Fiber
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	212	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Modulus, 5 mm/min	15000	MPa	ASTM D638
Flexural Stress	310	MPa	ASTM D790
Flexural Modulus	13000	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	150	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	12	J	ASTM D3763
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	16	kJ/m²	ISO 179/1eA
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	250	°C	ASTM D648
Relative Temp Index, Elec	65	°C	UL 746B
Relative Temp Index, Mech w/impact	65	°C	UL 746B
Relative Temp Index, Mech w/o impact	65	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.55	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [2]	0.12	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm [2]	0.44	%	SABIC method
Water Absorption, (23°C/saturated)	0.8	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/2.16 kg	15	cm³/10 min	ISO 1133

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL [1]			
Dielectric Constant (Dk), 1.1 GHz	4	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.01	-	ASTM ES 7-83
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E207780-101337256	-	-
UL Recognized, 94HB Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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