LNP™ THERMOCOMP™ COMPOUND PF008QS

PF-1008 HS RM

DESCRIPTION

LNP THERMOCOMP PF008QS compound is based on Nylon 6 resin containing 40% glass fiber. Added features of this grade include: Heat Stabilized, Reduced Moisture.

GENERAL INFORMATION	
Features	Heat Stabilized, Low Moisture Absorption, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyamide 6 (Nylon 6)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	152	MPa	ASTM D638
Tensile Strain, break	3	%	ASTM D638
Tensile Modulus, 50 mm/min	12200	MPa	ASTM D638
Flexural Stress	244	MPa	ASTM D790
Flexural Modulus	9580	MPa	ASTM D790
Tensile Stress, break	165	MPa	ISO 527
Tensile Strain, break	3.4	%	ISO 527
Tensile Modulus, 1 mm/min	11600	MPa	ISO 527
Flexural Stress	262	MPa	ISO 178
Flexural Modulus	12000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1105	J/m	ASTM D4812
Izod Impact, notched, 23°C	170	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	12	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	72	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	17	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	218	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	199	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	3.09E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.56E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	3.09E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.56E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	201	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.35	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.31	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.7 – 0.9	%	ISO 294
Density	1.35	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
INJECTION MOLDING (3)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	255 – 275	°C	
Front - Zone 3 Temperature	265 – 275	°C	
Middle - Zone 2 Temperature	255 – 265	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.3 – 0.7	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) 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