LNP™ THERMOCOMP™ Compound KF005

KFX-1005

DESCRIPTION

LNP THERMOCOMP KF005 compound is based on POM (Acetal) copolymer resin containing 25% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Acetal (POM) Copolymer
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 20260907

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	107	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.2	%	ASTM D638
Tensile Modulus, 50 mm/min	12920	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	38	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Flexural Modulus, 2 mm/min	10160	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	701	J/m	ASTM D4812
Izod Impact, notched, 23°C	69	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	38	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	163	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	162	°C	ASTM D648
CTE, -30°C to 30°C, flow	7.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	7.3E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	164	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	161	°C	ISO 75/Af
PHYSICAL [1]			
Moisture Absorption, (23°C/50% RH/24 hrs)	0.28	%	ASTM D570

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs [2]	0.6 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 4	%	ASTM D955
Density	1.6	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.28	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°C	
Mold Temperature	80 – 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) 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.

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