LNP™ THERMOCOMP™ COMPOUND OCF62E

OCF-1008 EM

DESCRIPTION

LNP THERMOCOMP OCF62E compound is based on linear Polyphenylene Sulfide (PPS) resin containing 10% carbon fiber, 30% glass fiber. Added features of this grade include: Electrically Conductive, Easy Molding

GENERAL INFORMATION	
Features	Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber, Glass Fiber
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
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, yld, Type I, 5 mm/min	157	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	157	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	0.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	0.7	%	ASTM D638
Tensile Modulus, 5 mm/min	30320	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	205	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	206	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	19070	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	133	MPa	ISO 527
Tensile Stress, break, 5 mm/min	133	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	0.5	%	ISO 527
Tensile Strain, break, 5 mm/min	0.5	%	ISO 527
Tensile Modulus, 1 mm/min	28600	MPa	ISO 527
Flexural Modulus, 2 mm/min	20560	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	260	J/m	ASTM D4812
Izod Impact, notched, 23°C	63	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	13	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	280	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	267	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.02E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.6E-05	1/°C	ASTM E831
CTE, 23°C to 60°C, flow	1.02E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.6E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	281	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	268	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.66	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.1 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.7 – 1	%	ASTM D955
Density	1.66	g/cm³	ISO 1183
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 320	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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.

DISCLAIMER