LNP™ THERMOCOMP™ COMPOUND 9F005P

9F005P

DESCRIPTION

LNP THERMOCOMPTM 9F005P is a compound based on Glass Fiber reinforced Polycarbonate. Added features of this material include: Exceptional Processing, CLTE close to Aluminum.

TYPICAL PROPERTY VALUES

Revision 20200108

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	130	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	130	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.0	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.0	%	ASTM D 638
Tensile Modulus, 5 mm/min	8245	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	166	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	7250	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	105	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	8277	MPa	ISO 527
Flexural Stress	168	MPa	ISO 178
Flexural Modulus, 2 mm/min	7987	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	27	kJ/m²	ISO 180/1U
Izod Impact, unnotched, 23°C	449	J/m	ASTM D 4812
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	33	kJ/m²	ISO 179/1eU
Izod Impact, notched, 23°C	98	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	7	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	129	°C	ISO 306
CTE, -40°C to 40°C, flow	2.68E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.67E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.68E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	2.47E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.67E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	6.6E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	135	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D 648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Moisture Absorption (23°C / 50% RH)	.01	%	ISO 62
Melt Volume Rate, MVR at 260°C/5.0 kg	47	cm³/10 min	ISO 1133
Specific Gravity	1.33	-	ASTM D 792
Water Absorption, 24 hours	0.06	%	ASTM D 570
Water Absorption, (23°C/sat)	0.06	%	ISO 62
Mold Shrinkage, flow, 24 hrs	0.34 – 0.44	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.53	%	ISO 294
Mold Shrinkage, flow, 24 hrs	0.34 – 0.44	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.53	%	ASTM D 955
Melt Flow Rate, 260°C/5.0 kgf	56	g/10 min	ASTM D 1238
Density	1.32	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.01	%	ASTM D 570
ELECTRICAL			
Comparative Tracking Index	200	V	IEC 60112
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-104050517	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94

(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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