LNP™ THERMOCOMP™ COMPOUND YF004

YF-1004

DESCRIPTION

LNP THERMOCOMP* YF004 is a compound based on Polyester Elastomer resin containing Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191213

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	11.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	2640	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	55	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1920	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, break, 5 mm/min	12.7	%	ISO 527
Tensile Modulus, 1 mm/min	2160	MPa	ISO 527
Flexural Stress	25	MPa	ISO 178
Flexural Modulus, 2 mm/min	310	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	nobreak	J/m	ASTM D 4812
Izod Impact, notched, 23°C	401	J/m	ASTM D 256
Multiaxial Impact	10	J	ISO 6603
Instrumented Impact Total Energy, 23°C	14	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	nobreak	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	37	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	186	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	151	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.21E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	3.2E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	184	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.35	-	ASTM D 792
Density	1.35	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.71	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.71	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Maximum Moisture Content	0.1	%	
Melt Temperature	215 – 240	°C	
Front - Zone 3 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	205 – 215	°C	
Rear - Zone 1 Temperature	180 – 195	°C	
Mold Temperature	25 – 55	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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