LNP™ THERMOCOMP™ COMPOUND DF002H

DF-1002 HC

DESCRIPTION

LNP THERMOCOMP* DF002H is a compound based on Polycarbonate resin containing 10% Glass Fiber. Added feature includes: Healthcare.

TYPICAL PROPERTY VALUES

Revision 20191219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	81	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	75	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	4250	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	138	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	4110	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	80	MPa	ISO 527
Tensile Stress, break, 5 mm/min	74	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.8	%	ISO 527
Tensile Strain, break, 5 mm/min	5.7	%	ISO 527
Tensile Modulus, 1 mm/min	4170	MPa	ISO 527
Flexural Modulus, 2 mm/min	3950	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	883	J/m	ASTM D 4812
Izod Impact, notched, 23°C	81	J/m	ASTM D 256
Multiaxial Impact	10	J	ISO 6603
Instrumented Impact Total Energy, 23°C	18	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	54	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	146	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.55E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.3E+01	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	146	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Af
PHYSICAL			
Density	1.29	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4 – 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Density	1.29	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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