

LNP™ THERMOCOMP™ COMPOUND 5E003M

FP-VC-1003 M
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP 5E003M is a compound based on PVDF resin containing 15% Milled Carbon Fiber. Added feature of this grade is: Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	6.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	9060	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5470	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	49	MPa	ISO 527
Tensile Stress, break, 5 mm/min	46	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	6.1	%	ISO 527
Tensile Modulus, 1 mm/min	7450	MPa	ISO 527
Flexural Stress	79	MPa	ISO 178
Flexural Modulus, 2 mm/min	6580	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	432	J/m	ASTM D 4812
Izod Impact, notched, 23°C	58	J/m	ASTM D 256
Multiaxial Impact	3	J	ISO 6603
Instrumented Impact Total Energy, 23°C	13	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D 648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.2E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	150	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	114	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.76	-	ASTM D 792
Density	1.76	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.04	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 – 3	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Melt Temperature	215 – 230	°C	
Front - Zone 3 Temperature	225 – 245	°C	
Middle - Zone 2 Temperature	210 – 225	°C	
Rear - Zone 1 Temperature	190 – 210	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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