



LNP™ THERMOCOMP™ Compound 5E003M

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound FP-VC-1003 M

Product reorder name: 5E003M

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	500	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	470	kgf/cm ²	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	92300	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	800	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	55700	kgf/cm ²	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	44	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Multiaxial Impact	38	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	132	cm-kgf	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



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
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



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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