

LNP™ THERMOCOMP™ 5E003M compound

Polyvinylidene Fluoride

SABIC Innovative Plastics

Message:

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

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

Product reorder name: 5E003M

General Information			
Filler / Reinforcement	Milled Carbon Fiber,15% Filler by Weight		
Features	Electrically Conductive		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.76	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	1.0 to 3.0	%	
Across Flow : 24 hr	1.0 to 3.0	%	
Water Absorption			
24 hr, 50% RH	0.040	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	9060	MPa	ASTM D638
--	7460	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	50.0	MPa	ASTM D638
Yield	49.0	MPa	ISO 527-2/5
Break ³	47.0	MPa	ASTM D638
Break	46.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.5	%	ASTM D638
Yield	3.4	%	ISO 527-2/5
Break ⁵	6.8	%	ASTM D638
Break	6.1	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	5470	MPa	ASTM D790
-- ⁷	6590	MPa	ISO 178
Flexural Stress			
--	79.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	79.0	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	59	J/m	ASTM D256
23°C ⁹	5.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	430	J/m	ASTM D4812
23°C ¹⁰	27	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	13.0	J	ASTM D3763
--	3.80	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	160	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹¹	150	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	136	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	114	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	2.0E-5	cm/cm/°C	
Transverse : -30 to 30°C	9.2E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	120 to 150	°C	
Drying Time	4.0	hr	
Rear Temperature	190 to 210	°C	
Middle Temperature	210 to 225	°C	
Front Temperature	225 to 245	°C	
Processing (Melt) Temp	215 to 230	°C	
Mold Temperature	65.0 to 90.0	°C	
Back Pressure	0.170 to 0.340	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	1.3 mm/min		
9.	80*10*4		
10.	80*10*4		
11.	80*10*4 mm		
12.	80*10*4 mm		

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