

## SABIC Innovative Plastics LNP THERMOCOMP 5E003M FP-V (PVDF)

Category : Polymer , Thermoplastic , Fluoropolymer , PVDF

### Material Notes:

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

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-5E003M-FP-V-PVDF.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-5E003M-FP-V-PVDF.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.76 g/cc	1.76 g/cc	ASTM D792
Density	1.76 g/cc	0.0636 lb/in <sup>3</sup>	ASTM D792
Moisture Absorption	0.0400 %	0.0400 %	50% RH, 24 hrs; ASTM D570
	0.0500 %	0.0500 %	23 <sup>o</sup> C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	>= 0.020 cm/cm	>= 0.020 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.010 - 0.030 cm/cm	0.010 - 0.030 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	46.0 MPa	6670 psi	5 mm/min; ISO 527
	47.0 MPa	6820 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	49.0 MPa	7110 psi	5 mm/min; ISO 527
	50.0 MPa	7250 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	6.1 %	6.1 %	5 mm/min; ISO 527
	6.8 %	6.8 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	3.4 %	3.4 %	5 mm/min; ISO 527
	3.5 %	3.5 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	7.45 GPa	1080 ksi	1 mm/min; ISO 527
	9.06 GPa	1310 ksi	5 mm/min; ASTM D638
Flexural Strength	79.0 MPa	11500 psi	ISO 178
Flexural Yield Strength	79.0 MPa	11500 psi	1.3 mm/min, 50 mm span; ASTM D790

Mechanical Properties	Metric	English	Comments
Flexural Modulus	6.47 GPa	793 ksi	1 mm/min, 50 mm span; ASTM D790
	6.58 GPa	954 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.580 J/cm	1.09 ft-lb/in	ASTM D256
Izod Impact, Unnotched	4.32 J/cm	8.09 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	26.0 kJ/m <sup>2</sup>	12.4 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	13.0 J @Temperature 23.0 Â°C	9.59 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	3.00 J	2.21 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	11.1 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	92.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	51.1 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	150 Â°C	302 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	160 Â°C @Thickness 3.20 mm	320 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	114 Â°C	237 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/ Af
	136 Â°C @Thickness 3.20 mm	277 Â°F @Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

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