

## SABIC Innovative Plastics LNP THERMOCOMP YF005 POLYESTER ELASTOMER

Category : Polymer , Thermoplastic , Polyester, TP

### Material Notes:

LNP\* THERMOCOMP\* YF005 is a compound based on Polyester Elastomer resin containing 25% Glass Fiber.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-YF005-POLYESTER-ELASTOMER.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-YF005-POLYESTER-ELASTOMER.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.40 g/cc	1.40 g/cc	ASTM D792
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ASTM D792
Moisture Absorption	0.310 %	0.310 %	50% RH, 24 hrs; ASTM D570
	0.410 %	0.410 %	23 <sup>o</sup> C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 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	45.0 MPa	6530 psi	5 mm/min; ISO 527
	46.0 MPa	6670 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	46.0 MPa	6670 psi	5 mm/min; ISO 527
	47.0 MPa	6820 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	8.3 %	8.3 %	Type I, 5 mm/min; ASTM D638
	10.3 %	10.3 %	5 mm/min; ISO 527
Elongation at Yield	9.5 %	9.5 %	5 mm/min; ISO 527
	9.9 %	9.9 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	2.36 GPa	342 ksi	1 mm/min; ISO 527
	2.37 GPa	344 ksi	50 mm/min; ASTM D638
Flexural Strength	53.0 MPa	7690 psi	ISO 178
Flexural Modulus	1.98 GPa	287 ksi	1.3 mm/min, 50 mm span; ASTM D790

Mechanical Properties	2.12 GPa Metric	307 ksi English	2 mm/min: ISO 178 Comments
Izod Impact, Notched	3.31 J/cm	6.20 ft-lb/in	ASTM D256
Izod Impact, Unnotched	9.98 J/cm	18.7 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	29.0 kJ/m <sup>2</sup>	13.8 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	76.0 kJ/m <sup>2</sup>	36.2 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	15.0 J @Temperature 23.0 Â°C	11.1 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	7.00 J	5.16 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	36.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	20.0 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	177 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	98.3 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	180 Â°C	356 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	186 Â°C @Thickness 3.20 mm	367 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	142 Â°C	288 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	152 Â°C @Thickness 3.20 mm	306 Â°F @Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

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