

## Samyang Triel<sup>®</sup> 5407EF Thermoplastic Polyether Ester Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyester, TP , Polyether Ester Elastomer

### Material Notes:

TRIEL<sup>®</sup> resins offer superior mechanical properties, elasticities, heat and chemical resistance, which allow it to be widely used for electric/electronic equipments, automotive parts and outdoor recreation equipments. TRIEL<sup>®</sup> can be processed by a variety of thermoplastic processing techniques like injection molding, extrusion and extrusion blow molding. Grade Characteristics: High Elasticity Good Spinning UV Stability Good Dying Applications: Elastic Fiber All information provided by Samyang

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Samyang-Triel-5407EF-Thermoplastic-Polyether-Ester-Elastomer.php](http://www.lookpolymers.com/polymer_Samyang-Triel-5407EF-Thermoplastic-Polyether-Ester-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.14 g/cc	1.14 g/cc	ASTM D792
Water Absorption	0.45 %	0.45 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage	0.014 - 0.015 cm/cm	0.014 - 0.015 in/in	ASTM D955
Melt Flow	15 - 18 g/10 min	15 - 18 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 230 Å°C	@Load 4.76 lb, Temperature 446 Å°F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	40	40	ASTM D2240
Tensile Strength, Yield	2.16 - 2.35 MPa	313 - 341 psi	ASTM D638
	@Strain 5.00 %	@Strain 5.00 %	
	4.22 - 4.41 MPa	612 - 640 psi	
	@Strain 10.0 %	@Strain 10.0 %	ASTM D638
	7.65 - 7.85 MPa	1110 - 1140 psi	ASTM D638
	@Strain 50.0 %	@Strain 50.0 %	
Elongation at Break	>= 400 %	>= 400 %	ASTM D638
Flexural Yield Strength	3.92 MPa	569 psi	ASTM D638
Flexural Modulus	0.0226 GPa	3.27 ksi	ASTM D790
Izod Impact, Unnotched	NB	NB	ASTM D256
	@Temperature -40.0 Å°C	@Temperature -40.0 Å°F	
	NB	NB	

Mechanical Properties	Metric @ Temperature -23.0 Â°C	English @ Temperature -9.40 Â°F	Comments
Taber Abrasion, mg/1000 Cycles	32	32	CS-17 Wheel; ASTM D1044

Thermal Properties	Metric	English	Comments
Melting Point	200 Â°C	392 Â°F	ASTM D2117
Deflection Temperature at 0.46 MPa (66 psi)	55.0 Â°C	131 Â°F	Rate B; ASTM D648
Vicat Softening Point	143 Â°C @Load 1.02 kg	289 Â°F @Load 2.25 lb	Rate B; ASTM D1525

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	170 - 220 Â°C	338 - 428 Â°F	Injection or Extrusion
Middle Barrel Temperature	180 - 220 Â°C	356 - 428 Â°F	Injection
	190 - 230 Â°C	374 - 446 Â°F	Extrusion
Front Barrel Temperature	180 - 220 Â°C	356 - 428 Â°F	Injection
	190 - 220 Â°C	374 - 428 Â°F	Extrusion
Nozzle Temperature	180 - 220 Â°C	356 - 428 Â°F	Injection
Die Temperature	190 - 220 Â°C	374 - 428 Â°F	Extrusion
Drying Temperature	<= 100 Â°C	<= 212 Â°F	
Dry Time	3 - 4 hour	3 - 4 hour	
Moisture Content	<= 0.030 %	<= 0.030 %	
Injection Pressure	5.90 - 7.90 MPa	856 - 1150 psi	
Cycle Time - Injection	1.2 - 1.5 sec	1.2 - 1.5 sec	
Cycle Time - Cooling	10 - 20 sec	10 - 20 sec	

## Contact Songhan Plastic Technology Co.,Ltd.

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