

## Huntsman IROGRAN® A 85 E 4993 FCM Polyester-Based TPU-Injection Extrusion Grade

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyurethane TPE , Polyurethane, TP , Thermoplastic Polyurethane, Elastomer, Polyester Grade

### Material Notes:

IROGRAN A 85 E 4993 FCM is a thermoplastic polyester polyurethane for melt calendaring. IROGRAN is part of the HUNTSMAN technical extrusion and injection molding product range and offers a specially designed, flexible material with a broad processing window. IROGRAN A 85 E 4993 FCM is a food contact material Performance Features: High wear resistance Good melt flow High elasticity Complies with FDA CFR 177.2600 Low color Applications: Textile Coatings Technical molding Cable jacketing Information provided by Huntsman

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Huntsman-IROGRAN-A-85-E-4993-FCM-Polyester-Based-TPU-Injection-Extrusion-Grade.php](http://www.lookpolymers.com/polymer_Huntsman-IROGRAN-A-85-E-4993-FCM-Polyester-Based-TPU-Injection-Extrusion-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.21 g/cc	0.0437 lb/in <sup>3</sup>	ASTM D792
Linear Mold Shrinkage	0.0090 cm/cm	0.0090 in/in	ASTM D995
Melt Index of Compound	65 g/10 min @Load 10.0 kg, Temperature 190 °C	65 g/10 min @Load 22.0 lb, Temperature 374 °F	cm <sup>3</sup> /10 min

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	86	86	ASTM D2240
Hardness, Shore D	36	36	ASTM D2240
Tensile Strength at Break	35.0 MPa	5080 psi	DIN 53504
Elongation at Break	700 %	700 %	ASTM D412
100% Modulus	0.00590 GPa	0.856 ksi	DIN 53504
300% Modulus	0.0112 GPa	1.62 ksi	DIN 53504
Rebound	35 %	35 %	Bayshore; ASTM D2632
Tear Strength	103 kN/m	590 pli	ASTM D624
Abrasion	25	25	[mm <sup>3</sup> ]; ISO 4649
Compression Set	25 % @Temperature 23.0 °C, Time 252000 sec	25 % @Temperature 73.4 °F, Time 70.0 hour	ASTM D395
	50 %	50 %	

Mechanical Properties	Metric @Temperature 70.0 Â°C	English @ Temperature 158 Â°F,	ASTM D395 Comments
	Time 86400 sec	Time 24.0 hour	

Thermal Properties	Metric	English	Comments
Melting Point	145 - 160 Â°C	293 - 320 Â°F	Huntsman/TMA

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not reported

Processing Properties	Metric	English	Comments
Feed Temperature	25.0 - 40.0 Â°C	77.0 - 104 Â°F	Extrusion
Front Barrel Temperature	170 - 195 Â°C	338 - 383 Â°F	Extrusion
Nozzle Temperature	175 - 200 Â°C	347 - 392 Â°F	Extrusion
Adapter Temperature	175 - 200 Â°C	347 - 392 Â°F	Extrusion
Die Temperature	175 - 205 Â°C	347 - 401 Â°F	Extrusion
Roll Temperature	160 - 180 Â°C	320 - 356 Â°F	Front
	160 - 180 Â°C	320 - 356 Â°F	Rear

## Contact Songhan Plastic Technology Co.,Ltd.

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