

Technical Data Sheet

SIPOLPRENE® 35150 FP

DESCRIPTION

SIPOLPRENE® 35150 FP is a block ether ester thermoplastic elastomer (TPC-ET), developed and manufactured by Sipol, with an nominal hardness of Shore D 37, a low modulus, and a rheological behaviour that makes it suitable for injection moulding and extrusion processing.

SIPOLPRENE® 35150 FP has been specifically developed with a low melting point which makes it suitable for blending with PVC to make soft compounds plasticizer free.

SIPOLPRENE® 35150 FP comes in a natural colour with a standard stabilisation package fully in compliance with American FDA and European EU 10/2011 Food Contact Regulations. Black colour and/or UV stabilised and/or heat stabilised are all available in dry blend versions upon request.

THERMAL PROPERTIES

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Melting temperature	ISO 11357-3	°C	150
Crystallization temperature	ISO 11357-3	°C	74
Glass transition temperature	ISO 11357-2	°C	-55
Vicat A /50	ISO 306	°C	105

RHEOLOGICAL PROPERTIES

PROPERTY	TEST METHOD	M.U.	VALUE
MFI 190°C, 2.16kg	ISO 1133	g/10 min	9
MVR 190°C, 2.16	ISO 1133	cm ³ /10min	8

MECHANICAL PROPERTIES

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Shore D hardness, instantaneous / 15 s	ISO 868	Shore D	37/33
Stress at break	ISO 527	MPa	28
Elongation at break	ISO 527	%	570
Flexural modulus	ISO 178	MPa	50
Izod impact resistance/notched (23°C)	ISO 180	J/m	No break
Izod impact resistance/notched (-40°C)	ISO 180	J/m	No break
Abrasion resistance (Vertical load 5N)	ISO 4649	mm ³	33
Compression set (23°C)	ISO 815:1991	%	24
Compression set (70°C)	ISO 815:1991	%	76

OTHER PROPERTIES

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Density	ISO 1183	g/cm ³	1,15
Water absorption (23°C x 24 h immersion)	MI 08	%	0.7

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PROCESSING CONDITIONS

Suggested temperature profile for injection molding

MELTING TEMPERATURE	MOLD TEMPERATURE	NOZZLE	FRONT ZONE 3	CENTER ZONE 2	REAR ZONE 1
°C	°C	°C	°C	°C	°C
150	20 - 30	165	160	150	145

Suggested temperature profile for extrusion

MELTING TEMPERATURE	MFI	FEEDING ZONE	COMPRESSION ZONE	METERING ZONE	HEAD/DIE
°C	g/10 min.	°C	°C	°C	°C
150	9 (190 °C, 2.16 Kg)	140 - 150	150 - 160	155 - 170	155 - 170

DRYING CONDITIONS

Drying recommended = Yes
Drying temperature = 90 °C
Drying time, dehumidifier dryer = 2-3 h
Processing moisture content = 0,15%

PACKAGING

25 kg bags equipped with an aluminum film barrier against moisture action.
500 kg cardboard octabins equipped with an inner PE liner.
500 Kg and 1000 Kg big bags.

STORAGE

Product is stable for 12 months when stored unopened in its original packaging, kept in a cool and dry place and protected from light. When stocked around 5 – 10°C or below, it is recommended to keep it at 15 – 20°C for at least for 24 hours before using it.