

Technical Data Sheet

**REPSOL
YPF**

**ISPLEN®
POLYPROPYLENE**

ISPLEN® PP-010 X6E HOMOPOLYMER

<i>APPLICATIONS</i>	<i>Pipes for industrial applications</i>
<i>HIGHLIGHTS</i>	- High thermal stability - Excellent chemical resistance
MELT FLOW RATE 230°C, 2.16 Kg	0.28 g/10 min.

DESCRIPTION

ISPLEN® PP-010 X6E is a homopolymer with a high molecular weight that contains a high thermal stability formulation. Due to averagely good flow properties and very high mechanical properties is a suitable grade to be processed into pipes

ADDITIVATION

ISPLEN® PP-010 X6E contains stabilizers and additives according to the end-use of the item in order to reinforce the thermal stability and increase the hot-water extraction resistance. Other additives may be included by the processor. Formulation allows polymer stability during the normal conditions of processing and use.

COLOURING

ISPLEN grades are supplied in natural colour but they can be easily coloured with pigments steady at processing temperatures, using dry-colouring or masterbatch techniques.

FOODSTUFF REGULATIONS

ISPLEN® PP-010 X6E are approved for food contact under certain legislation. For more information about specific country regulation, please, contact with our local representative or the Technical Service.

PROCESSING

ISPLEN® PP-010 X6E can be easily processed using extruders either of the single or twin-screw type, with suitable head for produce pipes. Single screw extruders should have the following characteristics:

Length/diameter ratio: 24 to 32.

Compression ratio: 3 to 4.

Screw: with torpedo and metering section with constant pitch and flight depth.

TYPICAL EXTRUSION CONDITIONS

The following temperature profile is suggested as a guide. Conditions will depend on size and wall thickness of the pipe produced and extrusion equipment used.

4 BARREL ZONES	CROSSHEAD 3 ZONES	MELT TEMPER.
From: 190/190/195/195 °C To: 200/205/210/215 °C	200/200/200 °C 220/220/220 °C	205 °C 225 °C

Cooling

To minimize internal stresses, it is advisable to install a system to keep such temperature to avoid a too sudden cooling and let sufficiently length or time to allow a complete homogeneity.

PHYSICAL PROPERTIES ISPLEN[®] PP-010 X6E

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
A) GENERAL			
Melt Flow Index			
230 °C, 2.16 Kg	g/10 min	ISO 1133	0.28
190°C, 5 Kg	g/10 min	ISO 1133	0.55
230°C, 5 Kg	g/10 min	ISO 1133	1.0
Density	g/cm ³	ISO 1183	0.903
B) MECHANICAL			
Tensile Yield Stress	MPa	ISO 527	34
Tensile Yield Strain	%	ISO 527	14
Flexural Modulus	MPa	ISO 178	1200
C) INTERNAL PRESSURE RESISTANCE			
Long-term hydrostatic strength for 50 years at 20°C (97% LCL)	MPa	ISO TR 9080	No data
D) OTHERS			
Izod Impact Strength 23 °C, notched	KJ/m ²	ISO 180/1A	8.5
Rockwell Hardness (10 N)	-	ASTM D-785	84
Vicat Softening Point (9.8 N)	°C	ISO 306	150
HDT (455 kPa)	°C	ISO 75	92

June 2004

This information is offered in good faith and meant only as a guide. The transformer or user will be, in each case, responsible for the processing conditions and the final use of the product. Freedom under patents, copyright and registered designs cannot be assumed.

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