

IPETHENE® 100**POLYETHYLENE-LOW DENSITY****Description**

Ipethene® 100 is a Polyethylene-Low Density extrusion grade for films, sheets, pipes, tubes, bottles, containers, nets and various profiles.

Designation:

- * Thermoplastics ISO 1872-PE, FGN, 18-D003, for films and sheets extrusion
- * Thermoplastics ISO 1872-PE, EGN, 18-D003, for pipes and profiles extrusion
- * Thermoplastics ISO 1872-PE, BGN, 18-D003, for blow molding

Its main features are:

- * Very good impact and puncture resistance
- * Good processability especially for thick-gauge films
- * Very good heavy duty film material
- * Good ESCR

General properties

As measured on pellets and plaques compression moulded according to ISO 293.

	Unit	Test Method	Value
M.F.I. (190;2.16)	g/10 min	ISO 1133	0.3
Density	g/cm ³	ISO 1183-C	0.9200
Bulk Density	g/cm ³	ISO 60	0.55
Tensile Yield Stress	MPa	ISO / R 527 (Type 2)	10.5
Tensile Strain at Break	%	ISO / R 527 (Type 2)	600
Tensile Stress at Break	MPa	ISO / R 527 (Type 2)	17.5
Vicat Softening Temperature	°C	ISO 306-A50	96
ESCR (F ₅₀)	Hours	ASTM D 1693-A-10%	18

Applications

This grade is mainly used to produce:

- * Irrigation pipe systems
- * 80 to 250 micron films, for:
 - * General purpose heavy duty film packaging
 - * Greenhouse and industrial films
 - * Heavy duty shrink packaging and liners

Film properties

As measured on a 100micron thick film, produced on an industrial 55mm L/D=30 blown-film extrusion line, die diameter 250mm, die gap 1.0mm, blow-up ratio 2:1, output 80kg/h, melt temperature ~210°C.

	Unit	Test Method	Value	
			MD	DT
Tensile Strength at Break	MPa	ISO 1184	22	19
Elongation at Break	%	ISO 1184	350	450
Break-energy	J	ISO 1184	7.10	6.80
Elmendorf Tear Strength	g	ISO 6383-2	300	500
Impact Resistance, free-falling Dart (F ₅₀)	g	ISO 7765-A	630	
Coefficient of Friction (dynamic)	-	ISO 8295	>0.5	
Haze	%	ASTM D-1003	15	
Gloss 45°	-	ASTM D-2457	45	

MD - Machine Direction
DT - Trasversal Direction

Quality standards

Ipethene® 100 is manufactured under ISO 9002 Quality Management System. Official certificate available upon request.

Food contact status

F.D.A Status

Complies with the requirements for contact with foodstuff, as published by the Food and Drugs Administration of the United States, in Section 177.1520.

European Union Status

Suitable for food contact applications, details available on demand.

Safety

Material Safety Data Sheet is available upon request.

The information given in this publication is true and accurate to the best of our knowledge. The numeric values presented are typical values obtained by testing laboratory samples.

Since many factors may affect processing and application, this publication is not intended as a legally binding assurance.

The users should perform their own tests in order to ascertain the suitability to a specific application. Also, it is the users' responsibility to ensure that their specific use does not constitute an infringement of any patent or law.