

**FLEXIRENE[®]**

LLDPE

FG 23 U

Linear low density polyethylene

Flexirene FG 23 U is a butene copolymer linear low density polyethylene (C4-LLDPE) with antioxidants, suitable for blown film extrusion.

Flexirene FG 23 U represents the version with slip and antiblock agents of Flexirene FG 20 U.

Main applications

Flexirene FG 23 U is recommended for the production of general purpose film, industrial liners and shoppers; its use is suggested both in blend and in coextrusion with LDPE.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	1.0
Density	ISO 1183	g/cm ³	0.918
Melting point	Internal method	°C	123
Brittleness point	ASTM D 746	°C	< - 70
Vicat softening point (1 kg)	ISO 306/A	°C	101

Film Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527-3 MD	MPa	11
	ISO 527-3 TD	MPa	11
Tensile strenght at break	ISO 527-3 MD	MPa	42
	ISO 527-3 TD	MPa	33
Elongation at break	ISO 527-3 MD	%	600
	ISO 527-3 TD	%	750
1% Secant modulus	ISO 527-3 MD	MPa	150
	ISO 527-3 TD	MPa	175
Elmendorf tear resistance	ISO 6383-2 MD	N/mm	25
	ISO 6383-2 TD	N/mm	170
Impact resistance F50 (Dart Drop Test)	ISO 7765-1	g	120
Dynamic coefficient of friction (COF)	ISO 8295		0.11
Haze	ISO 14782	%	15
Gloss, 45°	ASTM D 2457	%	50
Recommended film thickness		micron	15 ÷ 50

(*) Typical value for a film extruded between 190°-230°C, with BUR 2.5, thickness 25 µm. Actual properties are typical and may vary depending upon operating conditions and additive package.

Processing conditions

Flexirene FG 23 U is easily processable using blown film technology. Melt temperature should be between 190°C and 230°C. Recommended thickness: 15 - 50 µm.

Storage and handling

Flexirene FG 23 U is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping be practised throughout your facility.

Stored in an airy and dry room, at temperatures between 20°C and 30°C, with no direct sunlight, the shelf life is about 18 months. However, before using this product, read and understand the relevant POLIMERI EUROPA Safety Data Sheet.

Availability

Contact the POLIMERI EUROPA sales office nearest to you regarding availability and your specific application requirements.

Food contact status

Flexirene FG 23 U complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications. Certificates of compliance are available upon request.

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IMPORTANT: please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data.

Polimeri Europa is available to provide the guaranteed values for each product on demand.