

Product Data Sheet

MFI 3713

Medium Density Polyethylene

Product Description

MFI 3713 is a medium density polyethylene, which has a broad molecular weight distribution and high melt strength. This product which is produced by 1-hexene as a comonomer, specially designed for producing thin films with high tear resistance, good seal-ability, high strength and high draw down. This product is suitable for manufacturing of high strength carrier bags and high quality thin films for uni/multi-wall packaging. MFI 3713 has been manufactured under Basell license.

General Information

Status	Commercial: Active	
Application	Blown film extrusion- Uni/multi wall packaging- High quality thin films- High strength carrier bags	
Form(s)	Pellet	
Attribute	High melt stability- Good tear resistance- High Strength and toughness.	
Additives	Antioxidant: Yes Processing Aid: No	Antiblock: No Slip Agent: No

Typical Properties	Typical Value ¹	Unit	Test Method
Physical			
High Load Melt Flow Index (190°C/ 21.6 kg)	13	g/10 min	ISO 1133
Density ²	0.937	g/cm ³	ISO 1183
Mechanical ³			
Tensile Modulus of Elasticity	735	MPa	ISO 527-1,2
Tensile Strength (MD)	46	MPa	ISO 527-1,3
Tensile Strength (TD)	46	MPa	ISO 527-1,3
Tensile Strain at Break (MD)	550	%	ISO 527-1,3
Tensile Strain at Break (TD)	650	%	ISO 527-1,3
Elmendorf Tear Strength (MD)	210	mN	ISO 6383-2

Elmendorf Tear Strength (TD)	1100	mN	ISO 6383-2
Failure Energy	7	J/mm	DIN 53373
Dart Drop Impact	120	g	ASTM D1709

Thermal

Melting Temperature	127	°C	ISO 3146
Vicat Softening Temperature (Method A/10N)	121	°C	ISO 306

Recommended Process Conditions ⁴

Extruder temperature profile: 190-230 °C	Blow up ratio: 3-5
Film thickness: 10-50 µm	

1. Typical values: these are not to be construed as specifications.
2. The density parameter was determined on compression-molded specimens, which were prepared in accordance with procedure C of ASTM D4703, Annex A1.
3. Properties are based on 20 µm blown film produced at a melt temperature of 220°C and 3 BUR using 100% MFI 3713 resin. Modulus property is based on compression-molded specimens, which were prepared in accordance with procedure B of ASTM D4703, Annex A1.
4. Please note that, these processing conditions are recommended by manufacturer only for 100% MFI 3713 resin (not in the case of blending with any other compatible material), therefore because of the many particular factors which are outside our current knowledge and control and may affect the use of product, no warranty is given for the foregoing data. Moreover, the specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.