

Technical Data Sheet

MFI 3820

Medium Density Polyethylene

MFI3820 is a medium density polyethylene, which has a broad molecular weight distribution and high melt strength.

This product specially designed for producing thin films with high tear resistance, good sealability, high strength and high draw down. MFI3820 has been manufactured under Basell license.

Application:

Blown film extrusion-Geomembrane-High strength carrier bags-Uni/multi wall packaging

Arena Petro Gas

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Typical Properties	Typical Value ¹	Units	Test Method
Physical			
High Load Melt Flow Index(190°C/21.6kg)	20	g/10 min	ISO 1133
Density ²	0.938	gr/cm ³	ISO 1183
Bulk Density	>0.50	gr/cm ³	ISO 60
Mechanical³			
Tensile Modulus at Elasticity	650	MPa	ISO527-1;2
Tensile Strength at Yield	20	MPa	ISO527-1;3
Tensile Strain at Yield	10	%	ISO527-1;3
Ball Indentation Hardness (H 49/30)	34	MPa	ISO 2039-1
Shore D Hardness	44	—	ISO 868
Failure Energy	7	J/mm	DIN 53373
Dart Drop Impact	120	g	ASTM D1709
Thermal Properties			
Deflection Temperature Under Load (0.45 MPa)	61	°C	ISO 75
Deflection Temperature Under Load (1.8 MPa)	38	°C	ISO 75
Recommended Process Conditions⁴			
Extruder Barrel Temperature: 190-240 °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 4 BUR using 100% MFI3820 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% MFI3820 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.