HFI5110

Product Description

HFI 5110 is a high molecular weight, high-density polyethylene with broad molecular weight distribution and 1-hexene as a co-monomer, specially developed for producing thin films with excellent strength and rigidity. This product is suitable for manufacturing of high strength grocery sacks, shopping bags and high-quality thin films for uni/multi-wall packaging. Films produced with this grade can be readily treated and printed to give high quality graphics. HFI 5110 has been manufactured under Basell license.

Packaging

25 Kg bag

Application

Blown film extrusion- Uni/multi wall packaging- High quality thin films- Shopping bags- High strength grocery sacks.

Typical Data

Property	Unit	Typical Value	Test Method
Physical			
High Load Melt Flow Index (190ºC/ 21.6 kg)	g/10min	10	ISO 1133
Density [2]	g/cc	0.951	ISO 1183
Mechanical [3]			
Tensile Modulus of Elasticity	MPa	1050	ISO 527-1,2
Tensile Strength (MD)	MPa	55	ISO 527-1,3
Tensile Strength (TD)	MPa	55	ISO 527-1,3
Tensile Strain at Break (MD)	%	580	ISO 527-1,3
Tensile Strain at Break (TD)	%	620	ISO 527-1,3
Tensile Stress at Yield	MPa	26	ISO 527-1,3
Tensile Strain at Yield	%	10	ISO 527-1,3
Elmendorf Tear Strength (MD)	mN	250	ISO 6383-2
Elmendorf Tear Strength (TD)	mN	800	ISO 6383-2
Thermal			
Melting Temperature	°C	132	ISO 3146
Vicat Softening Temperature (Method A/10N)	°C	127	ISO 306
Recommended Process Conditions [4]			
Extruder temperature profile: 200-235 °C	Blow up ratio: 3-5		
Film thickness: 15-50 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% HFI5110 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% HFI5110 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.

Storage

Polyethylene resins must be stored in a dry, dust-free place away from heat and sunlight, at temperatures below 50 °C. They should be processed within 6 months of delivery to avoid quality degradation. Arya Sasol Polymer Company provides no warranty for improper storage or resulting defects. The information in the data sheet reflects current knowledge but is not a guarantee of specific properties. Customers are responsible for testing product suitability and ensuring legal compliance. The seller holds no liability for the provided information.