

HDPE

HBM 5510

High Density Polyethylene

Typical Properties	Typical Value ¹	Unit	Test Method
Physical			
High Load Melt Flow Index (190°C/ 21.6 kg)	10	g/10 min	ISO 1133
Melt Flow Index (190°C/ 2.16 kg)	0.075	g/10 min	ISO 1133
Density ²	0.955	g/cm ³	ISO 1183
Bulk Density	> 0.50	g/cm ³	ISO 60
Mechanical ³			
Tensile Modulus of Elasticity	1000	MPa	ISO 527-1,2
Flexural Modulus - 1% Secant	1000	MPa	ASTM D790
Tensile Stress at Yield	27	MPa	ISO 527-1,2
Tensile Strain at Yield	8	%	ISO 527-1,2
Tensile Stress at Break	43	MPa	ISO 527-1,2
Ball Indentation Hardness	49	MPa	ISO 2039-1
ESCR F ₅₀ (100% Igepal, Method B)	110	hrs	ASTM D1693
Impact			
Tensile Impact Strength (Notched, Type 1, Method A, -30°C)	135	kJ/m ²	ISO 8256
Izod Impact Strength (Notched, Method A, 23°C)	22	kJ/m ²	ISO 180
Thermal			
Vicat Softening Temperature (Method A/ 10N)	127	°C	ISO 306
Recommended Process Conditions ⁴			
Extruder Barrel Temperature: 180-220 °C		Melt Temperature: 200-235 °C	

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 compression-molded specimens, which were prepared in accordance with procedure B of ASTM D4703, Annex A1, using 100% HBM 5510 resin.
4. Please note that, these processing conditions are recommended by manufacturer only for 100% HBM 5510 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.



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