

Technical Data Sheet

HBM 4265

High Density Polyethylene

HBM4265 is a high molecular weight, high-density polyethylene with broad molecular weight distribution specially developed for producing intermediate bulk containers (IBC) for the packaging of dangerous goods, large blow molding parts and jerry cans. This grade, which is produced by 1-hexene co-monomer, offers very good creep strength, chemical resistance and environmental stress cracking resistance (ESCR), good processability and stiffness.

HBM4265 has been produced under Basell license.

Applications:

- Multipurpose Blow Molding Process Intermediate Bulk Container (IBC)
- Large Agricultural Tank Small to Large Jerry Cans
- Co-Extrusion

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Typical Properties	Typical Value ¹	Units	Test Method
High Load Melt Flow Index(190°C/21.6kg)	6.5	g/10 min	ISO 1133
Density ²	0.94γ	gr/cm ³	ISO 1183
Bulk Density	>0.50	gr/cm ³	ISO 60
Mechanical³			
Tensile Strength at Yield	24	MPa	ISO527-1;2
Tensile Strength at Yield	10	%	ISO527-1;2
Tensile Modulus of Elasticity	800	MPa	ISO527-1;2
FNCT(3.5 Mpa, 2% Arkopal n100,80°C)	60	hr	ISO 16770
Impact			
Tensile Impact Strength (Notched, Type 1, Method A, -30°C)	160	KJ/m ²	ISO 8256
Thermal Properties			
Melting Temperature	130	°C	ISO 3146
Vicat Softening Temperature (Method A/ 10N)	128	°C	ISO 306
Deflection Temperature Under Load (0.45 MPa)	70	°C	ISO 75
Deflection Temperature Under Load (1.8 MPa)	52	°C	ISO 75
Recommended Process Conditions⁴			
Extruder Barrel Temperature: 200-230 °C		Melt Temperature: 205-235 °C	

1. Typical values: these are not to be construed as specification.
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% HBM4265 resin.
4. Please note that these processing conditions are recommended by manufacturer only for 100% HBM4265 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. Also, the specific recommendations for resin type and the processing conditions can only be made when the end use, required properties and fabrication equipment are known.