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ARYA SASOL POLYMER COMPANY

HIGH DENSITY POLYETHYLENE HBM 4265

HBM 4265 is a high-density polyethylene (HDPE) developed for intermediate bulk containers (IBCs), large agricultural tanks, and jerry cans, known for its excellent creep strength, chemical resistance, and environmental stress cracking resistance (ESCR).

Producer	Characteristic Properties	Applications	Additive
Arya Sasol Petrochemical	very good creep strength, chemical resistance, environmental stress cracking resistance (ESCR), good processability, and stiffness.	Intermediate Bulk Containers (IBCs) Large Blow Molding	Processing Aid: No Antioxidant: Yes Antiblock: No Slip Agent: No

Typical Properties

Resin Properties	Unit	Typical Value	ASTM Method
High Load Melt Flow Index (190oC/ 21.6 kg)	g/10 min	6.5	ISO 1133
Density	g/cm ³	0.942	ISO 1183
Bulk Density	g/cm ³	> 0.50	ISO 60

Thermal Properties	Unit	Typical Value	Test Method
Melting Temperature	°C	130	ISO 3146
Vicat Softening Temperature (Method A/ 10N)	°C	128	ISO 306
Deflection Temperature Under Load (0.45 MPa)	°C	70	ISO 75
Deflection Temperature Under Load (1.8 MPa)	°C	52	ISO 75

Mechanical Properties	Unit	Typical Value	Test Method
Tensile Strength at Yield	MPa	24	ISO 527-1, -2
Tensile Strength at Yield	%	10	ISO 527-1, -2
Tensile Modulus of Elasticity	MPa	800	ISO 527-1, -2
FNCT (3.5 MPa, 2% Arkopal N100, 80oC)	hr	60	ISO 16770
Tensile Impact Strength (Notched, Type 1, Method A, -30oC)	kJ/m ²	160	ISO 8256