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ARYA SASOL POLYMER COMPANY

HIGH DENSITY POLYETHYLENE HBM 5510

HBM 5510 is a high density polyethylene, specially developed for large parts blow molding. This grade, which is produced by 1-hexene as a co-monomer, offers high stiffness, good process-ability, excellent parison melt strength and good ESCR. HBM 5510 has been manufactured under Basell license.

Producer	Characteristic Properties	Applications	Additive
Arya Sasol Petrochemical	Good ESCR Good Stiffness Good Process-ability	Large Parts Blow Molding - Standard and Lightweight Jerry Cans- Open Top Drums (Up to 110 lit).	Antioxidant: Yes Processing Aid: No 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	10	ISO 1133
Melt Flow Index (190oC/ 2.16 kg)	g/10 min	0.50	ISO 1133
Density	g/cm3	0.955	ISO 1183

Thermal Properties	Unit	Typical Value	Test Method
Vicat Softening Temperature (Method A/ 10N)	°C	127	ISO 306
Deflection Temperature Under Load (1.8 MPa)	°C	45	ISO 75

Mechanical Properties	Unit	Typical Value	Test Method
Tensile Modulus of Elasticity	MPa	1000	ISO 527-1,2
Flexural Modulus - 1%	MPa	1000	ASTM D790
Tensile Stress at Yield	MPa	27	ISO 527-1,2
Tensile Strain at Yield	%	8	ISO 527-1,2
Tensile Stress at Break	MPa	43	ISO 527-1,2
Ball Indentation Hardness	MPa	49	ISO 2039-1
Tensile Impact Strength (Notched, Type 1, ethod A, 30oC)	kJ/m2	135	ISO 8256