



**SHOBEIR SHIMI**  
WWW.SHOBEIRSHIMI.COM  
info@shobeirshimi.com

ARYA SASOL POLYMER COMPANY

## HIGH DENSITY POLYETHYLENE HBM 5520

HBM 5520 is a high-density polyethylene (HDPE) with medium molecular weight, known for its toughness, stress cracking resistance, and good mechanical properties. It's suitable for multi-purpose blow molding processes and finds application in the packaging and automotive industries.

Producer	Characteristic Properties	Applications	Additive
Arya Sasol Petrochemical	Good ESCR Good Process-ability Good stiffness and toughness	Multipurpose blow molding process- Containers for household and industrial chemicals- Automotive supplies- Foodstuffs	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	23	ISO 1133
Melt Flow Index (190oC/ 2.16 kg)	g/10 min	0.25	ISO 1133
Density	g/cm3	0.955	ISO 1183

Thermal Properties	Unit	Typical Value	Test Method
Deflection Temperature Under Load (0.45 MPa)	°C	83	ISO 75
Deflection Temperature Under Load (1.8 MPa)	°C	45	ISO 75
Melting Temperature	°C	135	ISO 3146
Vicat Softening Temperature (Method B/ 50N)	°C	79	ISO 306

Mechanical Properties	Unit	Typical Value	Test Method
Tensile Modulus of Elasticity	MPa	1200	ISO 527-1, -2
Tensile Stress at Yield	MPa	28	ISO 527-1, -2
Tensile Strain at Yield	%	9	ISO 527-1, -2
Ball Indentation Hardness (H 132/30)	MPa	51	ISO 2039-1
Tensile Impact Strength (Notched, Type 1, Method A, -30oC)	kJ/m2	110	ISO 8256