

## Technical Data Sheet

### HBM 5520

High Density Polyethylene

HBM5520 is a high density polyethylene with medium molecular weight. This grade offer excellent combination of toughness, stress cracking resistance, good mechanical properties and good processability. HBM5520 is recommended for multi purpose blow molding process. HBM5520 has been manufactured under Basell license.

#### Applications:

Multipurpose blow molding process, small blow molded articles, containers for household and industrial chemicals, automotive supplies, foodstuffs, toiletries and cosmetics

Arena Petro Gas

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Typical Properties	Typical Value <sup>1</sup>	Units	Test Method
<b>Physical</b>			
High Load Melt Flow Index(190°C/21.6kg)	23	g/10 min	ISO 1133
Melt Flow Index(190°C/2.16 kg)	0.25	g/10 min	ISO 1133
Density <sup>2</sup>	0.955	gr/cm <sup>3</sup>	ISO 1183
Bulk Density	>0.50	gr/cm <sup>3</sup>	ISO 60
<b>Mechanical<sup>3</sup></b>			
Tensile Modulus of Elasticity	1200	MPa	ISO527-1;2
Tensile Stress at Yield	28	MPa	ISO527-1;2
Tensile Strain at Yield	9	%	ISO527-1;2
Tensile Impact Strength(Notched, Type 1,Method A,-30°C)	110	KJ/m <sup>2</sup>	ISO 8256
Ball Indentation Hardness(H 132/30)	51	MPa	ISO 2039-1
ESCR	30	hr	Basell method
FNCT(3.5 MPa,2% Arkopal N100,80°C)	4.5	hr	ISO 16770
<b>Thermal Properties</b>			
Melting Temperature	135	°C	ISO 3146
Vicat Softening Temperature (Method B/ 50N)	79	°C	ISO 306
Deflection Temperature Under Load (0.45 MPa)	83	°C	ISO 75
Deflection Temperature Under Load (1.8 MPa)	45	°C	ISO 75
<b>Recommended Process Conditions<sup>4</sup></b>			
<b>Processing Method: Extrusion Blow Molding; Thermoforming</b>			
<b>Extruder Barrel Temperature: 180-210 °C</b>		<b>Melt Temperature: 200-225 °C</b>	

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% HBM5520 resin.
4. Please note that these processing conditions are recommended by manufacturer only for 100% HBM5520 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.