

# SABIC® HDPE BM1052

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

BM1052 is a high molecular weight High Density Polyethylene copolymer grade with broad molecular weight distribution. It has excellent processability and exhibits very high impact strength, stiffness and superior environmental stress crack resistance.

### TYPICAL APPLICATIONS

BM1052 resin is intended for blow molding of large containers such as closed head shipping containers, fuel tanks and containers for industrial use. It can also be extruded into sheets giving exceptionally high impact strength.

### TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate <sup>(1)</sup></b>			
at 190°C and 2.16 kg <sup>(1)</sup>	0.05	g/10 min	ASTM D 1238
at 190°C and 5 kg	0.38	g/10 min	ASTM D 1238
at 190°C and 21.6 kg	10	g/10 min	ASTM D 1238
<b>Density at 23°C</b>	<b>952</b>	<b>kg/m<sup>3</sup></b>	<b>ASTM D1505</b>
<b>MECHANICAL PROPERTIES</b>			
<b>1% Secant Modulus</b>	1000	MPa	ASTM D638
<b>Tensile Strength at Yield</b>	27	MPa	ASTM D638
<b>Tensile Strength at Break</b>	18	MPa	ASTM D638
<b>Tensile Elongation at Break</b>	> 500	%	ASTM D638
<b>Flexural Strength <sup>(2)</sup></b>	26	MPa	ASTM D790
<b>Flexural modulus</b>	1050	MPa	ISO 178/1A
<b>Izod Impact Strength</b>	300	J/m	ASTM D256
<b>Hardness (Shore D)</b>	63	-	ASTM D2240
<b>ESCR (100% Igepal), F50</b>	> 1200	hrs	ASTM D1693B
<b>ESCR (10% Igepal), F50</b>	720	hrs	ASTM D1693B
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point</b>	125	°C	ASTM D1525
<b>Brittleness Temperature</b>	< -75	°C	ASTM D746

(1) Typical values: not to be construed as specification limits.

(2) Based on compression molded sheet.