

# 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

Revision 20210812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES <sup>(1)</sup></b>			
<b>Melt Flow Rate</b>			
at 190°C and 21.6 kg	10	g/10 min	ASTM D1238
at 190°C and 5 kg	0.38	g/10 min	ASTM D1238
<b>Density at 23°C</b>	952	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES <sup>(2)</sup></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</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>	>500	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.

## PROCESSING CONDITIONS

Typical processing conditions for BM1052 are:

Barrel temperature: 200 - 250°C

Melt temperature: 200 - 230°C

## HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, Additional specific information can be requested via your local Sales Office.

DISCLAIMER: This product is not intended for and must not be used in any pharmaceutical/medical applications.



## STORAGE AND HANDLING

Polyethylene material should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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