

SABIC[®] BM1052

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

Physical Properties	Metric	English	Comments
Density	0.952 g/cc	0.0344 lb/in ³	ASTM D1505
ESCR 100% Igepal®	>= 1200 hour	>= 1200 hour	F50; ASTM D1693B
ESCR 10% Igepal®	720 hour	720 hour	F50; ASTM D1693B
Melt Flow	0.050 g/10 min @Load 2.16 kg, Temperature 190 °C	0.050 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
	0.38 g/10 min @Load 5.00 kg, Temperature 190 °C	0.38 g/10 min @Load 11.0 lb, Temperature 374 °F	ASTM D1238
	10 g/10 min @Load 21.6 kg, Temperature 190 °C	10 g/10 min @Load 47.6 lb, Temperature 374 °F	ASTM D1238
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	63	63	ASTM D2240
Tensile Strength at Break	18.0 MPa	2610 psi	ASTM D638
Tensile Strength, Yield	27.0 MPa	3920 psi	ASTM D638
Elongation at Break	>= 500 %	>= 500 %	ASTM D638
Flexural Strength	26.0 MPa	3770 psi	ASTM D790
Flexural Modulus	1.05 GPa	152 ksi	ASTM D790
1% Secant Modulus	>= 1000 MPa	>= 145000 psi	ASTM D638
Izod Impact, Notched	3.00 J/cm	5.62 ft-lb/in	ASTM D256
Thermal Properties	Metric	English	Comments
Vicat Softening Point	125 °C	257 °F	ASTM D1525
Brittleness Temperature	<= -75.0 °C	<= -103 °F	ASTM D746
Processing Properties	Metric	English	Comments
Melt Temperature	200 - 230 °C	392 - 446 °F	