SABIC® HDPE M1053

High Density Polyethylene

SABIC

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Technical Data

Product Description

SABIC® HDPE M1053 is an easy-to-process, tough grade with good resistance to environmental stress cracking (ESCR) and low notch sensitivity. SABIC® HDPE M1053 is typically used for e.g. caps, closures and pails.

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

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet		
Search for UL Yellow Card	• SABIC		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Processability • Good Toughness	• High Density • High ESCR (Stress Crack Resist.)	
Uses	• Industrial Applications	• Rigid Packaging	
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.953 g/cm³	0.953 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	10 g/10 min	10 g/10 min	
190°C/5.0 kg	28 g/10 min	28 g/10 min	
Environmental Stress-Cracking Resistance (ESCR) [3]			Internal Method
104°F (40°C), 0.0394 in (1.00 mm), 100% Igepal CO-630	25.0 hr	25.0 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus (0.0787 in (2.00 mm))	160000 psi	1100 MPa	ISO 527-2/1BA/50
Tensile Stress			ISO 527-2/1BA/50
Yield, 0.0787 in (2.00 mm)	3770 psi	26.0 MPa	
Break, 0.0787 in (2.00 mm)	2320 psi	16.0 MPa	
Tensile Strain (Break, 0.0787 in (2.00 mm))	200 %	200 %	ISO 527-2/1BA/50
Flexural Modulus	174000 psi	1200 MPa	ISO 178
Flexural Stress	3770 psi	26.0 MPa	ISO 178
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact Strength (73°F (23°C))	1.4 ft·lb/in²	3.0 kJ/m²	ISO 180/A
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Shore Hardness (Shore D)	61	61	ISO 868
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature [4]			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	178 °F	81.0 °C	
Vicat Softening Temperature	255 °F	124 °C	ISO 306/A
Melting Temperature	270 °F	132 °C	ISO 11357-3
Enthalpy Change	203 J/g	203 J/g	ISO 11357-3

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

[3] 6 bar internal water pressure

[4] Compression Molded

Form No. TDS-70802-en

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