

# SABIC® LLDPE M500026

## Linear Low Density Polyethylene

### Saudi Basic Industries Corporation (SABIC)



#### Product Description

SABIC® LLDPE M500026 is a high flow, linear low density polyethylene copolymer injection moulding grade with a narrow molecular weight distribution. It has been designed to have excellent low temperature toughness, stress crack resistance (ESCR), mouldability and gloss.

SABIC® LLDPE M500026 is recommended for injection moulding of containers and reclosure lids. It is well suited for fast cycle, deep draw injection moulding applications, which takes advantage of its high flow properties. Also, the higher melting point of the material allows for high end-use temperature when compared with conventional polyethylenes of equal density. SABIC® LLDPE M500026 resin is recommended for injection moulding masterbatch where a high filler acceptance is required, combined with a good flow.

The product mentioned herein is in particular not tested and therefore not validated for use in pharmaceutical/medical applications.

#### General

Material Status	• Commercial: Active		
Availability	• Europe		
Features	• Fast Molding Cycle • High ESCR (Stress Crack Resist.)	• High Flow • High Gloss	• Low Temperature Toughness • Narrow Molecular Weight Distribution
Uses	• Containers	• Lids	• Masterbatch
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.926 g/cm <sup>3</sup>	0.926 g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	50 g/10 min	50 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance 100% Igepal, Compression Molded, F50	2.00 hr	2.00 hr	ASTM D1693A

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 1% Secant (Compression Molded)	51300 psi	354 MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, Compression Molded	1890 psi	13.0 MPa	
Break, Compression Molded	1800 psi	12.4 MPa	
Tensile Elongation			ASTM D638
Break, Compression Molded	120 %	120 %	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	8.4 ft-lb/in	450 J/m	ASTM D256

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness Shore D, Compression Molded	55	55	ASTM D2240

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -103 °F	< -75.0 °C	ASTM D746
Vicat Softening Temperature	190 °F	88.0 °C	ASTM D1525 <sup>2</sup>

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	356 to 446 °F	180 to 230 °C
Mold Temperature	41.0 to 86.0 °F	5.00 to 30.0 °C

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Rate A (50°C/h), Loading 1 (10 N)