

SABIC® HDPE BM6246LS

HIGH DENSITY POLYETHYLENE

DESCRIPTION

BM6246LS is a medium molecular weight High Density Polyethylene homopolymer grade for blow molding applications. It is primarily designed for imparting high rigidity, toughness and good processability. These unique properties offer the possibility to reduce weight at very good top load strength.

TYPICAL APPLICATIONS

BM6246LS resin is primarily intended for blow molding bottles for the food and beverage industry. This grade meets the latest end consumer expectations regarding purity, healthiness and organoleptics. It combines a high rigidity with superb processing performance, which offers potential for system cost reduction. The grade is very suited for the blow molding of mono as well as multi-layer bottles in several food markets, like fresh, pasteurized and ultra-heat treated milk, sauces, orange juice, functional drinks, probiotics and other "daily shot" drinks. The unique properties offer the possibility to reduce weight at very good top load strength.

TYPICAL PROPERTY VALUES

Revision 20220720

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	0.7	dg/min	ASTM D1238
at 190 °C and 5 kg	2.5	dg/min	ASTM D1238
at 190 °C and 21.6 kg	46	dg/min	ASTM D1238
Density			
@ 23°C	961	kg/m ³	ASTM D792
MECHANICAL PROPERTIES ⁽²⁾			
1% Secant Modulus	>1000	MPa	ASTM D638
Tensile Strength at Yield	30	MPa	ASTM D638
Tensile Strength at Break	18	MPa	ASTM D638
Tensile Elongation at Break	500	%	ASTM D638
Flexural Strength	28	MPa	ASTM D790
Flexural Modulus	1100	MPa	ISO 178/1A
Izod Impact Strength	150	J/m	ASTM D256
Hardness (Shore D)	66	-	ASTM D2240
ESCR (100% Igepal), F50	24	Hrs	ASTM D1693B
ESCR (10% Igepal), F50	16	Hrs	ASTM D1693B
THERMAL PROPERTIES			
Vicat Softening Point	127	°C	ASTM D1525
Brittleness Temperature	<-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 BM6246LS are: Barrel temperature: 170 - 200°C

Melt temperature: 180-210°C

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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