

## 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 20260305

| PROPERTIES                                  | TYPICAL VALUES | UNITS  | TEST METHODS |
|---------------------------------------------|----------------|--------|--------------|
| <b>POLYMER PROPERTIES <sup>(1)</sup></b>    |                |        |              |
| <b>Melt Flow Rate (MFR)</b>                 |                |        |              |
| 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   |
| <b>Density</b>                              |                |        |              |
| @ 23°C                                      | 961            | kg/m³  | ASTM D792    |
| <b>MECHANICAL PROPERTIES <sup>(2)</sup></b> |                |        |              |
| 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  |
| <b>THERMAL PROPERTIES</b>                   |                |        |              |
| 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

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### 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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