

SABIC® HDPE B6246LS

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE B6246LS is typically used in food and beverage packaging, offering good purity and organoleptics as well as recycle ability. It combines a high rigidity with very good processing performance, which offers potential for system cost reduction.

The grade is typically used 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 material properties offer the possibility to reduce weight at good top load strength.

This slip agent free grade is also typically used for the injection molding of caps & closures for carbonated soft drinks and sparkling water as well as high environmental stress crack resistant applications, like UN-pails and UN-caps & closures.

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

TYPICAL PROPERTY VALUES

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|-------------------|--------------|
| POLYMER PROPERTIES | | | |
| Melt Flow Rate (MFR) | | | |
| at 190 °C and 2.16 kg | 0.50 | dg/min | ISO 1133 |
| at 190 °C and 5 kg | 2.5 | dg/min | ISO 1133 |
| at 190 °C and 21.6 kg | 46 | dg/min | ISO 1133 |
| Density⁽¹⁾ | 962 | kg/m ³ | ISO 1183 |
| MECHANICAL PROPERTIES^{(1) (2)} | | | |
| Tensile test^{(3) (4)} | | | |
| stress at yield | 29 | MPa | ISO 527-2 |
| stress at break | 18 | MPa | ISO 527-2 |
| strain at break | 1000 | % | ISO 527-2 |
| tensile modulus | 1300 | MPa | ISO 527-2 |
| Flexural test | | | |
| Flexural modulus | 1600 | MPa | ISO 178 |
| Flexural strength | 31 | MPa | ISO 178 |
| Izod impact notched | | | |
| at 23 °C | 13 | kJ/m ² | ISO 180/A |
| at -30 °C | 7 | kJ/m ² | ISO 180/A |
| Hardness Shore D | | | |
| ESCR (10% Igepal CO-630), F50 | 64 | - | ISO 868 |
| ASTM D1693B | | | |
| THERMAL PROPERTIES | | | |
| Heat deflection temperature^{(1) (2)} | | | |
| at 0.45 MPa (HDT/B) | 89 | °C | ISO 75-2 |
| Vicat Softening Temperature^{(1) (2)} | | | |
| at 10 N (VST/A) | 129 | °C | ISO 306 |
| DSC test | | | |
| melting point | 135 | °C | ISO 11357-3 |
| enthalpy change | 225 | J/g | ISO 11357-3 |