

# SABIC<sup>®</sup> BM6246LS

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.  
Information provided by SABIC

| Physical Properties       | Metric                                                | English                                               | Comments         |
|---------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------|
| Density                   | 0.961 g/cc                                            | 0.0347 lb/in <sup>3</sup>                             | ASTM D792        |
| ESCR 100% Igepal®         | 24 hour                                               | 24 hour                                               | F50; ASTM D1693B |
| ESCR 10% Igepal®          | 16 hour                                               | 16 hour                                               | F50; ASTM D1693B |
| Melt Flow                 | 0.70 g/10 min<br>@Load 2.16 kg,<br>Temperature 190 °C | 0.70 g/10 min<br>@Load 4.76 lb,<br>Temperature 374 °F | ASTM D1238       |
|                           | 2.5 g/10 min<br>@Load 5.00 kg,<br>Temperature 190 °C  | 2.5 g/10 min<br>@Load 11.0 lb,<br>Temperature 374 °F  | ASTM D1238       |
|                           | 46 g/10 min<br>@Load 21.6 kg,<br>Temperature 190 °C   | 46 g/10 min<br>@Load 47.6 lb,<br>Temperature 374 °F   | ASTM D1238       |
| Mechanical Properties     | Metric                                                | English                                               | Comments         |
| Hardness, Shore D         | 66                                                    | 66                                                    | ASTM D2240       |
| Tensile Strength at Break | 18.0 MPa                                              | 2610 psi                                              | ASTM D638        |
| Tensile Strength, Yield   | 30.0 MPa                                              | 4350 psi                                              | ASTM D638        |
| Elongation at Break       | 500 %                                                 | 500 %                                                 | ASTM D638        |
| Flexural Strength         | 28.0 MPa                                              | 4060 psi                                              | ASTM D790        |
| Flexural Modulus          | 1.10 GPa                                              | 160 ksi                                               | ISO 178/1A       |
| 1% Secant Modulus         | >= 1000 MPa                                           | >= 145000 psi                                         | ASTM D638        |
| Izod Impact, Notched      | 1.50 J/cm                                             | 2.81 ft-lb/in                                         | ASTM D256        |
| Thermal Properties        | Metric                                                | English                                               | Comments         |
| Vicat Softening Point     | 127 °C                                                | 261 °F                                                | ASTM D1525       |
| Brittleness Temperature   | <= -75.0 °C                                           | <= -103 °F                                            | ASTM D746        |