

## TECHNICAL DATASHEET

# HDPE QB5502

### PRODUCT DESCRIPTION

**QB5502** is a high-density polyethylene resin that exhibits good processability and environmental stress crack resistance. Typical applications include bottles for household chemicals, food products, and personal care products.

### APPLICATION:

Bottles For Consumer Goods

### PROCESSING METHOD:

Extrusion Blow Moulding

| TYPICAL PROPERTIES   | ENGLISH               |        | SI                |       | TEST METHOD |
|--|-----------------------|--------|-------------------|-------|-------------|
|  | UNIT                  | VALUE  | UNIT              | VALUE |             |
| <b>Physical</b>  |                       |        |                   |       |             |
| Melt Flow Rate, (190 °C/2.16 kg)   | g/10 min              | 0.30   | g/10 min          | 0.30  | ASTM D1238  |
| Density, (23 °C)   | g/cm <sup>3</sup>     | 0.954  | g/cm <sup>3</sup> | 0.954 | ASTM D1505  |
| <b>Mechanical</b>  |                       |        |                   |       |             |
| Flexural Modulus, (1% Secant)  | psi                   | 190000 | MPa               | 1310  | ASTM D790   |
| Tensile Strength at Yield  | psi                   | 4000   | MPa               | 27.6  | ASTM D638   |
| Tensile Elongation at Break  | %                     | >1000  | %                 | >1000 | ASTM D638   |
| Environmental Stress Crack Resistance, F <sub>50</sub><br>(100% Igepal®, Cond B) | hr                    | 200    | hr                | 200   | ASTM D1693  |
| <b>Impact</b>  |                       |        |                   |       |             |
| Tensile Impact Strength  | ft-lb/in <sup>2</sup> | 140    | kJ/m <sup>2</sup> | 294   | ASTM D1822  |
| <b>Hardness</b>  |                       |        |                   |       |             |
| Shore Hardness, (Shore D)  |                       | 68     |                   | 68    | ASTM D2240  |
| <b>Thermal</b>   |                       |        |                   |       |             |
| Vicat Softening Temperature  | °F                    | 259    | °C                | 126   | ASTM D1525  |
| Low Temperature Brittleness, F <sub>50</sub>                                     | °F                    | <-105  | °C                | <-76  | ASTM D746   |
| Deflection Temperature Under Load,<br>(66 psi, Unannealed)                       | °F                    | 151    | °C                | 66    | ASTM D648   |

Notes: Igepal® is a registered trademark of Rhodia. These are typical property values not to be construed as specification limits.

### PROCESSING TECHNIQUES:

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

HIGH DENSITY  
POLYETHYLENE  
QB5502