

## Technical Data Sheet

### Hostalen 5231H

High Density Polyethylene



#### Product Description

Outstanding balance of stiffness, toughness and environmental stress cracking resistance make *Hostalen* 5231H the choice of customers for the production of closures for water, CSD and many other types of food and non-food caps and closures.

|                          |                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Status</b>            | Commercial: Active                                                                                               |
| <b>Availability</b>      | Africa-Middle East; Asia-Pacific; Australia and New Zealand; Europe; North America; South & Central America      |
| <b>Application</b>       | Caps & Closures; Collapsible Tubes                                                                               |
| <b>Market</b>            | Consumer Products; Rigid Packaging                                                                               |
| <b>Processing Method</b> | Compression Molding; Injection Molding                                                                           |
| <b>Attribute</b>         | Good Organoleptic Properties; Good Toughness; High Density; High ESCR (Environmental Stress Cracking Resistance) |

| Typical Properties                    | Nominal Value | Units             | Test Method   |
|---------------------------------------|---------------|-------------------|---------------|
| <b>Physical</b>                       |               |                   |               |
| Melt Flow Rate                        |               |                   |               |
| (190 °C/2.16 kg)                      | 2.0           | g/10 min          | ISO 1133-1    |
| (190 °C/5.0 kg)                       | 5.6           | g/10 min          | ISO 1133-1    |
| Density                               | 0.952         | g/cm <sup>3</sup> | ISO 1183-1    |
| <b>Mechanical</b>                     |               |                   |               |
| Tensile Modulus                       | 1100          | MPa               | ISO 527-1, -2 |
| Tensile Stress at Yield               | 25            | MPa               | ISO 527-1, -2 |
| Tensile Strain at Yield               | 10            | %                 | ISO 527-1, -2 |
| Environmental Stress Crack Resistance | >=35          | hr                | LYB Method    |
| Cap test (4 MPa; 2% Arkopal, 50°C)    |               |                   |               |
| <b>Impact</b>                         |               |                   |               |
| Charpy Impact Strength - Notched      |               |                   |               |
| (23 °C)                               | 10.4          | kJ/m <sup>2</sup> | ISO 179       |
| (-30 °C)                              | 5.3           | kJ/m <sup>2</sup> | ISO 179       |
| <b>Hardness</b>                       |               |                   |               |
| Shore Hardness, (Shore D)             | 70            |                   | ISO 868       |
| Ball Indentation Hardness             | 50            | MPa               | ISO 2039-1    |
| <b>Thermal</b>                        |               |                   |               |
| Vicat Softening Temperature, (B50)    | 74            | °C                | ISO 306       |

