

## Technical Data Sheet

### *Icorene* 1460 BUE 5123

Polyethylene Copolymer, Linear

#### Product Description

*Icorene* 1460 is a UV stabilised hexene linear medium density polyethylene specifically developed for use in rotational moulding. This grade is popular for use in agriculture and chemical storage containers, technical parts and automotive parts. Additionally, this grade is particularly resistant against the harmful effect of biodiesel fuel. *Icorene* 1460 has good overall mouldability, extremely high ESCR and impact strength (especially at low temperatures). It is not intended for use in medical and pharmaceutical applications.

|                          |                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processing Method</b> | Rotomolding                                                                                                                             |
| <b>Attribute</b>         | Good Moldability; Good Toughness; High ESCR (Environmental Stress Cracking Resistance); Low Temperature Impact Resistance; UV Resistant |
| <b>Forms</b>             | Powder                                                                                                                                  |
| <b>Appearance</b>        | Natural Color; Unspecified Color                                                                                                        |
| <b>Additive</b>          | Antioxidant; UV Stabilizer                                                                                                              |
| <b>Application</b>       | Automotive Exterior Parts; General Purpose; Industrial Containers                                                                       |

| Typical Properties                                    | Nominal Value | Units             | Test Method |
|-------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                       |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                      | 7.5           | g/10 min          | ISO 1133    |
| Density                                               | 0.936         | g/cm <sup>3</sup> | ISO 1183    |
| <b>Mechanical</b>                                     |               |                   |             |
| Tensile Strength at Yield                             | 17.0          | MPa               | ISO 527-1   |
| Environmental Stress Crack Resistance                 |               |                   |             |
| (Condition B, F50, 10% Igepal, 50 °C)                 | >5000         | hr                | ASTM D1693  |
| (Condition B, F50, 100% Igepal, 50 °C)                | >10000        | hr                | ASTM D1693  |
| Tensile Strain at Break                               | >650          | %                 | ISO 527-1   |
| Tensile Strain at Yield                               | 10            | %                 | ISO 527-1   |
| Tensile Modulus                                       | 700           | MPa               | ISO 527     |
| <b>Impact</b>                                         |               |                   |             |
| Impact Strength, (-40 °C, 3.20 mm, Rotational Molded) | >75           | J                 | ARM         |
| Tensile Impact Strength                               |               |                   |             |
| (Method A, -30 °C)                                    | 104           | kJ/m <sup>2</sup> | ISO 8256    |
| (Method A, 23 °C)                                     | 213           | kJ/m <sup>2</sup> | ISO 8256    |
| <b>Hardness</b>                                       |               |                   |             |
| Shore Hardness, (Shore D, Rotational Molded)          | 56            |                   | ISO 868     |
| <b>Thermal</b>                                        |               |                   |             |
| Vicat Softening Temperature, (A (10N), 50 °C/h)       | 113           | °C                | ISO 306     |