

## Technical Data Sheet

### *Icorene* 3940 GRY 7831



High Density Polyethylene

#### Product Description

*Icorene* 3940 is a high density polyethylene specifically developed for rotational moulding. This grade is suitable for use in general purpose applications. It has a good balance of properties such as toughness and stiffness.

#### Regulatory Status

For regulatory compliance information, see *Icorene* 3940 GRY 7831 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| <b>Status</b>            | Commercial: Active                                                |
| <b>Availability</b>      | Europe                                                            |
| <b>Processing Method</b> | Rotomolding                                                       |
| <b>Attribute</b>         | Good Processability; Good Stiffness; Good Toughness; UV Resistant |
| <b>Forms</b>             | Powder                                                            |
| <b>Appearance</b>        | Natural Color; Unspecified Color                                  |
| <b>Additive</b>          | UV Stabilizer                                                     |
| <b>Application</b>       | Containers; General Purpose; Tanks                                |

| Typical Properties                                          | Nominal Value | Units             | Test Method |
|-------------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                             |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                            | 4.0           | g/10 min          | ASTM D1238  |
| Density                                                     | 0.939         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                                           |               |                   |             |
| Tensile Strength at Yield, (50 mm/min, 23 °C, 3.20 mm)      | 19.0          | MPa               | ISO 527-1   |
| Tensile Strength at Break, (50 mm/min, 23 °C, 3.20 mm)      | 20.0          | MPa               | ISO 527-1   |
| Environmental Stress Crack Resistance, (100% Igepal, 50 °C) | >1000         | hr                | ASTM D1693  |
| Flexural Modulus                                            | 730           | MPa               | ISO 178     |
| Tensile Elongation at Break, (50 mm/min, 23 °C, 3.20 mm)    | >280          | %                 | ISO 527-1   |
| <b>Impact</b>                                               |               |                   |             |
| Drop Impact Resistance, (-20 °C, Internal Method)           | 170           | J/cm              | ASTM D4226  |
| <b>Hardness</b>                                             |               |                   |             |
| Durometer Hardness, (Shore D)                               | 60            |                   | ISO 868     |
| <b>Thermal</b>                                              |               |                   |             |
| Vicat Softening Temperature, (A (10N))                      | 118           | °C                | ISO 306     |
| Melting Temperature                                         | 128           | °C                | DSC         |

## Notes

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.

## Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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