

## Technical Data Sheet

### *Icorene* 1615-3442G Black



Polyethylene, Linear Medium Density

#### Product Description

*Icorene* 1615 is a hexene linear medium density polyethylene specifically developed for use in rotational molding. This grade is designed for applications requiring good processability, stiffness and toughness. This product is particularly suitable for the production of diesel fuel tanks. *Icorene* 1615 is TUV ECE R34 approved, protocol no: 205XS0179-00.

#### Regulatory Status

For regulatory compliance information, see *Icorene* 1615-3442G Black [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| Status            | Commercial: Active                                                                                                      |
| Availability      | North America                                                                                                           |
| Processing Method | Rotomolding                                                                                                             |
| Attribute         | Good ESCR (Environmental Stress Cracking Resistance); Good Processability; Good Stiffness; Good Toughness; UV Resistant |
| Forms             | Powder                                                                                                                  |
| Appearance        | Black                                                                                                                   |
| Additive          | UV Stabilizer                                                                                                           |
| Application       | Agricultural Tanks; Heavy Transportation; Lawn & Garden Equipment; Outdoor Applications                                 |

| Typical Properties                                                           | Nominal Value | Units             | Test Method |
|------------------------------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                                              |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                                             | 3.5           | g/10 min          | ASTM D1238  |
| Density                                                                      | 0.939         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                                                            |               |                   |             |
| Tensile Strength at Yield                                                    | 20.1          | MPa               | ASTM D638   |
| Environmental Stress Crack Resistance                                        |               |                   |             |
| (F50, 10% Igepal, 50 °C)                                                     | 50.0          | hr                | ASTM D1693  |
| (F50, 100% Igepal, 50 °C)                                                    | >1000         | hr                | ASTM D1693  |
| Flexural Modulus, (1% Secant)                                                | 801           | MPa               | ASTM D790   |
| Tensile Elongation at Break                                                  | 230           | %                 | ASTM D638   |
| <b>Impact</b>                                                                |               |                   |             |
| Impact Strength                                                              |               |                   |             |
| (-40 °C, 3.18 mm, Rotational Molded)                                         | >79           | J                 | ARM         |
| (-40 °C, 6.35 mm, Rotational Molded)                                         | >258          | J                 | ARM         |
| <b>Thermal</b>                                                               |               |                   |             |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Rotational Molded) | 62.0          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (1.80 MPa)                      | 38.8          | °C                | ASTM D648   |
| <b>UL Information</b>                                                        |               |                   |             |
| Flame Rating, (38.1 mm)                                                      | HB            |                   | UL 94       |

## 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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