

## Technical Data Sheet

**Icorene 1869**

Linear Low Density Polyethylene  
LyondellBasell Industries  
Rotomolding

**Product Description**

ICORENE® 1869 is a self adhesive linear low density polyethylene powder specifically developed for rotational lining.

This grade has been designed using a high performance additive package formulated to provide good bonding to metal surfaces during processing. ICORENE® 1869 is particularly suitable for bonding to steel surfaces.

We recommend the use of a specific metal preparation process to ensure consistent and effective metal-to-polymer bonding.

For processing advice please consult our process guide.

**General**

|                   |                      |                       |
|-------------------|----------------------|-----------------------|
| Material Status   | • Commercial: Active |                       |
| Availability      | • Europe             | • North America       |
| Additive          | • Antioxidant        |                       |
| Features          | • Bondability        | • Corrosion Resistant |
| Uses              | • Adhesives          |                       |
| Appearance        | • Black              | • Natural Color       |
| Forms             | • Powder             |                       |
| Processing Method | • Rotational Molding | • Roto Lining         |

| Physical                                                                                                | Nominal Value (English) | Nominal Value (SI)      | Test Method |
|---------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------|
| Density (73°F (23°C))                                                                                   | 0.927 g/cm <sup>3</sup> | 0.927 g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)                                                               | 3.5 g/10 min            | 3.5 g/10 min            | ISO 1133    |
| Environmental Stress-Cracking Resistance (ESCR)<br>122°F (50°C), 10% Antarox, Rotational Molded,<br>F50 | > 1000 hr               | > 1000 hr               | ASTM D1693B |
| Mechanical                                                                                              | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Tensile Stress<br>Yield, 0.118 in (3.00 mm), Rotational Molded                                          | 2180 psi                | 15.0 MPa                | ISO 527-2   |
| Flexural Modulus<br>73°F (23°C), 0.118 in (3.00 mm)                                                     | 67400 psi               | 465 MPa                 | ISO 178     |
| Hardness                                                                                                | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Shore Hardness (Shore D)                                                                                | 52                      | 52                      | ISO 868     |
| Thermal                                                                                                 | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Melting Temperature                                                                                     | 250 °F                  | 121 °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.

**Product Storage and Handling**

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

**Company Information**

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

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