

## Technical Data Sheet

# Icorene 5045 SL

High Density Polyethylene  
LyondellBasell Industries  
Rotomolding

### Product Description

ICORENE® 5045 SL is a superlinear high density polyethylene specifically developed for use in rotational moulding. It is designed for high rigidity parts and present a good gloss finish with moulds with glossy, chrome, or nickel finishes.

This grade is particularly suitable for the production of multilayer boat. It has very high stiffness, good toughness and scratch resistance combined with good processability.

### General

|                   |                                                    |                                                  |                |
|-------------------|----------------------------------------------------|--------------------------------------------------|----------------|
| Additive          | • UV Stabilizer                                    |                                                  |                |
| Features          | • Good Processability<br>• High Scratch Resistance | • Ultra High Stiffness<br>• Ultra High Toughness | • UV Resistant |
| Uses              | • Water Sports Equipment                           |                                                  |                |
| Appearance        | • Natural Color                                    | • Unspecified Color                              |                |
| Forms             | • Powder                                           |                                                  |                |
| Processing Method | • Rotational Molding                               |                                                  |                |

| Physical                                  | Nominal Value (English) | Nominal Value (SI) | Test Method     |
|-------------------------------------------|-------------------------|--------------------|-----------------|
| Density                                   | 0.950 g/cm³             | 0.950 g/cm³        | ASTM D1505      |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 Kg) | 5.9 g/10 min            | 5.9 g/10 min       | ASTM D1238      |
| Mechanical                                | Nominal Value (English) | Nominal Value (SI) | Test Method     |
| Tensile Strength <sup>1</sup>             |                         |                    | ISO 527-1       |
| Yield                                     | 3770 psi                | 26.0 MPa           |                 |
| Break                                     | 1160 psi                | 8.00 MPa           |                 |
| Tensile Elongation <sup>1</sup>           |                         |                    | ISO 527-1       |
| Yield                                     | 19 %                    | 19 %               |                 |
| Break                                     | 130 %                   | 130 %              |                 |
| Flexural Modulus                          | 164000 psi              | 1130 MPa           | ASTM D790       |
| Impact                                    | Nominal Value (English) | Nominal Value (SI) | Test Method     |
| Drop Impact Resistance <sup>2</sup>       |                         |                    | Internal Method |
| -4°F (-20°C)                              | 4.50 in·lb/mil          | 200 J/cm           |                 |
| 73°F (23°C)                               | 4.95 in·lb/mil          | 220 J/cm           |                 |
| Hardness                                  | Nominal Value (English) | Nominal Value (SI) | Test Method     |
| Durometer Hardness (Shore D)              | 63                      | 63                 | ASTM D2240      |

### Notes

<sup>1</sup> ISO 527-1B

<sup>2</sup> Based on ISO 6603

### Notes

These are typical property values not to be construed as specification limits.