

## Technical Data Sheet

# Polyaxis PD 3000

Polypropylene Copolymer  
LyondellBasell Industries  
Rotomolding

### Product Description

Polyaxis PD 3000 is a polypropylene specifically designed for rotational molding. A long term UV package and robust antioxidant system allow this material to be used in a variety of applications.

### General

|                   |                                          |                                                 |
|-------------------|------------------------------------------|-------------------------------------------------|
| Additive          | • Long Term UV-15 Stabilizer: Yes        |                                                 |
| Uses              | • Automotive Under the Hood<br>• Bottles | • Containers<br>• High Temperature Applications |
| Appearance        | • Black                                  | • Natural Color                                 |
| Forms             | • Pellets                                | • Powder                                        |
| Processing Method | • Rotational Molding                     |                                                 |

| Physical                                                                                | Nominal Value (English) | Nominal Value (SI)      | Test Method |
|-----------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------|
| Density / Specific Gravity <sup>1</sup>                                                 | 0.902                   | 0.900 g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg)                                               | 20 g/10 min             | 20 g/10 min             | ASTM D1238  |
| Environmental Stress-Cracking Resistance (ESCR)<br>100% Igepal, Compression Molded, F50 | > 1000 hr               | > 1000 hr               | ASTM D1693  |

| Mechanical                                                  | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------------------------------------|-------------------------|--------------------|-------------|
| Tensile Strength <sup>2</sup> (Yield, Rotational Molded)    | 3760 psi                | 25.9 MPa           | ASTM D638   |
| Tensile Elongation <sup>2</sup><br>Break, Rotational Molded | 40 %                    | 40 %               | ASTM D638   |
| Flexural Modulus - 1% Secant (Rotational Molded)            | 187000 psi              | 1290 MPa           | ASTM D790   |

| Impact                                             | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------------------------|-------------------------|--------------------|-------------|
| Impact Strength                                    |                         |                    | ARM         |
| 73°F (23°C), 0.125 In (3.18 Mm), Rotational Molded | 15 ft·lb                | 20 J               |             |
| 73°F (23°C), 0.250 In (6.35 Mm), Rotational Molded | 20 ft·lb                | 27 J               |             |

| Thermal                                                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------------------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load                                    |                         |                    | ASTM D648   |
| 66 Psi (0.45 Mpa), Unannealed, Rotational Molded                     | 221 °F                  | 105 °C             |             |
| 264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm), Rotational Molded | 122 °F                  | 49.9 °C            |             |

### Notes

<sup>1</sup> Compression Molded

<sup>2</sup> 2.0 in/min (51 mm/min)

### Notes

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