

# ExxonMobil™ HD 5245.18

## High Density Polyethylene

### Product Description

ExxonMobil™ HD 5245.18 is a narrow molecular weight hexene copolymer designed for outstanding balance of ESCR, Toughness, and Stiffness properties. This resin is ideally suited for heavy-duty applications that require robust performance in conditions ranging from ambient to sub-zero temperatures.

### General

|                           |  |  |
|---------------------------|--|--|
| Availability <sup>1</sup> | ▪ Latin America                                    | ▪ North America  |
| Additive                  | ▪ Antioxidant: Yes                                 |  |
| Applications              | ▪ Industrial Caps & Closures<br>▪ Industrial Pails | ▪ Packaging Drum Lids<br>▪ Recreational Vehicle - Components |
| Revision Date             | ▪ 03/13/2015                                       |  |

| Resin Properties                          | Typical Value (English) | Typical Value (SI)      | Test Based On    |
|---|-------------------------|-------------------------|------------------|
| Density                                   | 0.952 g/cm <sup>3</sup> | 0.952 g/cm <sup>3</sup> | ASTM D1505       |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 4.5 g/10 min            | 4.5 g/10 min            | ASTM D1238 (mod) |

| Thermal   | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|-------------------------|--------------------|---------------|
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed  | 158 °F                  | 70 °C              | ASTM D648     |
| Deflection Temperature Under Load (DTUL) at 264psi - Unannealed | 112 °F                  | 44 °C              | ASTM D648B    |
| Peak Melting Temperature  | 271 °F                  | 133 °C             | ASTM D3418    |

| Molded Properties                     | Typical Value (English) | Typical Value (SI) | Test Based On     |
|---------------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield             | 3800 psi                | 26 MPa             | ASTM D638         |
| Elongation at Break                   | 1200 %                  | 1200 %             | ExxonMobil Method |
| Flexural Modulus                      |                         |                    | ASTM D790B        |
| 1% Secant                             | 190000 psi              | 1300 MPa           |                   |
| 2% Secant                             | 170000 psi              | 1100 MPa           |                   |
| Environmental Stress-Crack Resistance |                         |                    | ASTM D1693B       |
| 10% Igepal, F50                       | 6 hr                    | 6 hr               |                   |

| Impact                              | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------------|-------------------------|--------------------|---------------|
| Notched Izod Impact (-40°F (-40°C)) | 1.1 ft-lb/in            | 59 J/m             | ASTM D256     |

### Additional Information

- Properties are based on compression molded samples.
- Test procedures may be modified to accommodate operating conditions or facility limitations. (Industrial Pails to Meet UN9)
- Tensile Strength at Yield and Elongation at Break tested using ASTM D638 Type IV, 50 mm/min.

### Legal Statement

This product is not intended for use in medical applications and should not be used in any such applications.

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

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