

Marlex® K203

LOW DENSITY LINEAR POLYETHYLENE

This low density linear, high molecular weight hexane copolymer is tailored for sheet and geomembrane applications that require:

- Outstanding ESCR
- Broad fusion range
- Excellent melt strength
- Good processability
- Excellent flexibility
- Improved output and texturing

Typical geomembrane applications for K203 include:

- Landfill covers and caps
- Masterbatch carrier
- Round and flat die projects

This resin meets these specifications:

- ASTM D4976 - PE 215
- FDA 21 CFR 177.1520(c) 3.1a, use conditions C through G

Typical sheet applications for K203 include:

- Coextruded cap layers for HDPE
- Blends with HDPE

| NOMINAL PHYSICAL PROPERTIES ⁽¹⁾ | English | SI | Method |
|---|---------------------------|-------------------------|-----------------------|
| Density | --- | 0.922 g/cm ³ | ASTM D1505 |
| Flow Rate (HLMI, 190/21.6) | --- | 15.0 g/10 min | ASTM D1238 |
| Tensile Strength at Yield , 2 in/min, Type IV bar | 1,800 psi | 12 MPa | ASTM D638 |
| Elongation at Break , 2 in/min, Type IV bar | 750% | 750% | ASTM D638 |
| Flexural Modulus , Tangent - 16:1 span:depth, 0.5 in/min | 70,000 psi | 480 MPa | ASTM D790 |
| ESCR , Condition B (10% Igepal), F ₅₀ | >1,500 h | >1,500 h | ASTM D1693 |
| ESCR , Condition C (100% Igepal), F ₅₀ | >1,500 h | >1,500 h | ASTM D1693 |
| SP-NCTL | >1,000 h | >1,000 h | ASTM D5397 (Appendix) |
| Durometer Hardness , Type D (Shore D) | 55 | 55 | ASTM D2240 |
| Vicat Softening Temperature , Loading 1, Rate A | 219°F | 104°C | ASTM D1525 |
| Heat Deflection Temperature , 66 psi, Method A | 124°F | 51°C | ASTM D648 |
| Brittleness Temperature , Type A, Type I specimen | <-103°F | <-75°C | ASTM D746 |
| Tensile Impact , Type S bar | 380 ft•lb/in ² | 800 kJ/m ² | ASTM D1822 |

1. The nominal properties reported herein are typical of the product, but do not reflect normal testing variance and therefore should not be used for specification purposes. Values are rounded. The physical properties were determined on compression molded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

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