



Medium Density Polyethylene Resin

Technical Data Sheet

Marlex® K307

This medium density, high molecular weight, hexene copolymer is tailored for geomembrane applications that require:

- Outstanding ESCR
- Broad fusion range
- Excellent melt strength
- Good processability

This resin meets these specifications:

- ASTM D4976 – PE225
- GRI-GM13 except carbon black requirements
- FDA 21 CFR 177.1520(c) 3.1a, use conditions C through G per 21 CFR 176.170(c). Volume of food contacting article must be equal to or greater than 5 gallons.

Typical applications include:

- Landfill liners
- Gasoline and chemical tank containment liners
- Tunnel moisture barriers
- Mine tailing collection projects

Nominal Physical Properties *	ASTM	Unit	Value
Density	D1505	g/cm ³	0.937
Melt Index, Condition 190°C/ 21.6 kg	D1238	g/10min	21.0
ESCR, Condition C (100% Igepal) F ₅₀	D1693	h	>1500
ESCR, Condition B, (10% Igepal) F ₅₀	D1693	h	>1500
Tensile Yield Strength, 50 mm/ min	D638 Type IV	MPa	20
Elongation at Break, 50 mm/ min	D638 Type IV	%	>800
Flexural Modulus, Tangent	D790	MPa	830
SP-NCTL	D5397	h	>900
Brittleness Temperature	D746	°C	<-75

* 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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