SHELL POLYMERS
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55B035.DEV - High-Density Polyethylene Resin Technical Data Sheet

Product Description

Shell Polymers HDPE 55B035 is a high molecular weight, ethylene-hexene copolymer exhibiting the characteristics of excellent stiffness to ESCR ratio, good impact resistance and durability. UL 94HB recognized.

Highlights

- Designed for extrusion blow molding.
- Suitable for use in oil bottles, household and industrial chemical containers, and personal care product containers.
- Slurry loop technology

Resin Properties	**Method**	**Nominal Value**
Density	ASTM D792	0.955 g/cm^3
Melt Index (190°C / 2.16 kg)	ASTM D1238	0.35 g/10 min

Mechanical Properties	**Method**	**Nominal Value** (English)	**Nominal Value** (SI)
Environmental Stress-Cracking Resistance (ESCR)[a]	ASTM D1693	>35 hr	>35 hr
Tensile[b] Strength at Yield	ASTM D638	4100 psi	28.4 MPa
Tensile[b] Strength at Break	ASTM D638	2500 psi	17.7 MPa
Tensile[b] Elongation at Yield	ASTM D638	9.0%	9.0%
Tensile[b] Elongation at Break	ASTM D638	>600%	>600%
Flexural Modulus 1% Secant	ASTM D790B	189,000 psi	1300 MPa
Flexural Modulus 2% Secant	ASTM D790B	160,000 psi	1100 MPa

Thermal Properties	**Method**	**Nominal Value** (English)	**Nominal Value** (SI)
Peak Melting Temperature		270 °F	132 °C
Peak Crystallization Temperature		244 °F	118 °C

Notes:

Typical properties only. Not to be construed as specifications. Users should confirm results by performing their own tests.

Plaques molded in accordance with ASTM D4703C

[a]ESCR tested using Condition B, 100% Igepal

[b]Tensile properties tested on Type IV specimens

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Regulatory Statement:

- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.1a or 3.2a
- Consult the Regulatory Data Sheet for more details. It is available upon request. Please contact your Account Manager.

www.shell.us/polymers

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