



## 65N8U.DEV - High-Density Polyethylene Resin

### Product Description

Shell Polymers HDPE 65N8U.DEV is a homopolymer that provides excellent stiffness, low warpage, and easy processability. This grade is ideal for the production of cases, crates, totes, bins, and other articles requiring high stiffness.

### Highlights

- Excellent stiffness
- Low warpage
- High top load
- Gas phase technology

Resin Properties	Method	Nominal Value
Density	ASTM D792	0.965 g/cm <sup>3</sup>
Melt Index (190 °C / 2.16 kg)	ASTM D1238	8.2 g/10 min

Mechanical Properties	Method	Nominal Value (English)	Nominal Value (SI)
Environmental Stress-Cracking Resistance (ESCR) <sup>(a)</sup>	ASTM D1693	3 hr	3 hr
Tensile <sup>(b)</sup> Strength at Yield	ASTM D638	4640 psi	32.0 MPa
Tensile <sup>(b)</sup> Strength at Break	ASTM D638	2000 psi	13.8 MPa
Tensile <sup>(b)</sup> Elongation at Yield	ASTM D638	7.3 %	7.3 %
Tensile <sup>(b)</sup> Elongation at Break	ASTM D638	225 %	225 %
Flexural Modulus 1% Secant	ASTM D790B	252,400 psi	1740 MPa
Flexural Modulus 2% Secant	ASTM D790B	213,200 psi	1470 MPa
Tensile Impact Strength	ASTM D1822	21.4 ft.lb/in <sup>2</sup>	45.0 kJ/m <sup>2</sup>
Notched Izod Impact (-30 °C)	ASTM D256	0.88 ft.lb/in	47.0 J/m

Thermal Properties	Method	Nominal Value (English)	Nominal Value (SI)
Deflection Temperature Under Load at 66 psi (0.455 MPa) Unannealed	ASTM D648	187 °F	86 °C
Peak Melting Temperature		277 °F	136 °C
Peak Crystallization Temperature		246 °F	119 °C

### Additives

UV additive



#### 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

<sup>(a)</sup>ESCR tested using Condition B, 100% Igepal

<sup>(b)</sup>Tensile properties tested on Type IV specimens

#### Regulatory Statement:

- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.1 or 2.2
- Consult the Regulatory Data Sheet for more details. It is available upon request. Please contact your Account Manager.

**HDTD.65N8U.DEV.R1**

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