DOW™ HDPE 25455N
High Density Polyethylene Resin

DOW

Overview   DOW™ Polyethylene 25455N High Density Resin is a narrow molecular weight distribution copolymer designed to offer good ESCR and gloss with excellent toughness. This resin has good processability over a wide range of molding conditions.

- For housewares, toys, medical applications
- Good ESCR, gloss and excellent toughness

Complies with:
- U.S. FDA 21 CFR 177.1520 (c) 3.2a.
- Canadian HPFB No Objection (With Limitations)
- EU, No 10/2011

Consult the regulations for complete details.

Additive   • Antiblock: No   • Slip: No   • Processing Aid: No

Physical	Nominal Value (English)		Nominal Value (SI)		Test Method
Density	0.955	g/cm³	0.955	g/cm³	ASTM D792
Base Density [1]	0.955	g/cm³	0.955	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	25	g/10 min	25	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 100% Igepal, F50	1.00	hr	1.00	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					ASTM D638
Yield	3700	psi	25.5	MPa	
Break	2000	psi	13.8	MPa	
Tensile Elongation					ASTM D638
Yield	6.0	%	6.0	%	
Break	200	%	200	%	
Flexural Modulus - 2% Secant	136000	psi	938	MPa	ASTM D790B
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Impact Strength [2]	60.0	ft·lb/in²	126	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness (Shore D)	59		59		ASTM D2240
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	153	°F	67.2	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	262	°F	128	°C	ASTM D1525
Melting Temperature (DSC)	264	°F	129	°C	Dow Method
Peak Crystallization Temperature (DSC)	241	°F	116	°C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

[2] Type S