DOW™ HDPE DGDA-5004 NT 7
High Density Polyethylene Resin

Overview   DOW DGDA-5004 NT 7 High Density Polyethylene (HDPE) resin is a multi-purpose polymer designed for sheet extrusion and thermoforming applications, including single-serve disposables and other thin walled containers.

Main Characteristics:
- Maximum rigidity
- High Impact Strength
- Good Top Load Strength
- Optimized Shear Rheology for Good Processability
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
- Consult the regulations for complete details.

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.961	g/cm³	0.961	g/cm³	ASTM D792
Base Density [1]	0.961	g/cm³	0.961	g/cm³	Dow Method
Melt Index					ASTM D1238
190°C/2.16 kg	0.80	g/10 min	0.80	g/10 min	
190°C/21.6 kg	57	g/10 min	57	g/10 min	

Mechanical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Tensile Strength					ASTM D638
Yield	4600	psi	31.7	MPa	
Break	3500	psi	24.1	MPa	
Tensile Elongation					ASTM D638
Yield	7.0	%	7.0	%	
Break	1000	%	1000	%	
Flexural Modulus - 2% Secant	188000	psi	1300	MPa	ASTM D790B

Impact	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Tensile Impact Strength [2]	40.0	ft·lb/in²	84.1	kJ/m²	ASTM D1822

Hardness	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Durometer Hardness (Shore D)	66		66		ASTM D2240

Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	169	°F	76.1	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	268	°F	131	°C	ASTM D1525
Melting Temperature (DSC)	271	°F	133	°C	Dow Method
Peak Crystallization Temperature (DSC)	248	°F	120	°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