DOW™ LLDPE GRSN-9820 NT 7
Linear Low Density Polyethylene Resin

Overview

- Granular form
- Carrier resin for masterbatch systems
- Complies with U.S. FDA 21 CFR 177.1520 (c)3.1a
- Complies with EU, No 10/2011
- Consult the regulations for complete details.

DOW GRSN-9820 NT 7 Linear Low Density Polyethylene (LLDPE) Resin is produced using UNIPOL™ PE Process Technology and is supplied in granular form. This resin is specifically designed as a carrier resin for color concentrates and other masterbatch systems. The fine particle size reduces the need for grinding, and the high surface area of granular resin allows for more uniform dispersion of concentrate in the final product. GRSN-9820 NT 7 is compatible with polyethylene and polypropylene resins and can be used in a wide variety of fabrication processes.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.924	g/cm³	0.924	g/cm³	ASTM D792
Base Density [1]	0.924	g/cm³	0.924	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 100% Igepal, F50	20.0	hr	20.0	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					ASTM D638
Yield	1700	psi	11.7	MPa	
Break	1100	psi	7.58	MPa	
Tensile Elongation					ASTM D638
Yield	3.0	%	3.0	%	
Break	60	%	60	%	
Flexural Modulus - 2% Secant	56000	psi	386	MPa	ASTM D790B
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Impact Strength [2]	80.0	ft·lb/in²	168	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness (Shore D)	50		50		ASTM D2240
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	109	°F	42.8	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	201	°F	93.9	°C	ASTM D1525
Melting Temperature (DSC)	253	°F	123	°C	Dow Method
Peak Crystallization Temperature (DSC)	226	°F	108	°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