



FINGERPRINT™ DFDC-7525 NT

Polyethylene Resin

Overview

FINGERPRINT™ DFDC-7525 NT is a medium density polyethylene resin produced using Unipol™ process technology. It is intended for use in thin-wall micro irrigation tape applications and profile extrusion applications. DFDC-7525 NT exhibits good draw down characteristics producing tape with a reliable balance of extrusion ease and toughness.

It also has utility as a blending component to modify and improve the physical properties of high pressure, very low density, linear low density, or high density polyethylene resins. Outdoor applications require the addition of UV stabilizer to maintain the excellent properties over extended periods of UV exposure. Dow DFNF-0092 carbon black masterbatch at a 6.5% concentration has been found to offer suitable UV resistance.

Main Characteristics:

- High tensile properties
- High elongation properties
- Excellent burst strength

Slip Additive: none

Antiblock Additive: none

Industrial Standards Compliance:

- ASTM D 3350: cell classification PE234510A

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.939 g/cm ³	0.939 g/cm ³	ASTM D792
Melt Index			ASTM D1238
190°C/2.16 kg	> 0.15 g/10 min	> 0.15 g/10 min	
190°C/21.6 kg	20 g/10 min	20 g/10 min	
Environmental Stress-Cracking Resistance (ESCR) ¹			ASTM D1693A
F0	> 2000 hr	> 2000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹			ASTM D638
Yield	3800 psi	26.2 MPa	
Break	4350 psi	30.0 MPa	
Tensile Elongation ¹ (Break)	> 800 %	> 800 %	ASTM D638
Flexural Modulus ¹	100000 psi	689 MPa	ASTM D790
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness ¹ (Shore D)	55	55	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature ¹	< -148 °F	< -100 °C	ASTM D746A
Vicat Softening Temperature	241 °F	116 °C	ASTM D1525
Melting Temperature (DSC)	257 °F	125 °C	Dow Method
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	430 to 480 °F	221 to 249 °C	

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Type: All standard commercial extrusion equipment.
- Melt Temperature Range: 430 - 480 °F (220 - 250 °C)

Notes

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

¹ Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.

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Published: 2002-03-07

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