



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 | | | ASTM D1693A ¹ |
| F0 | > 2000 hr | > 2000 hr | |
| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Strength | | | ASTM D638 ¹ |
| Yield | 3800 psi | 26.2 MPa | |
| Break | 4350 psi | 30.0 MPa | |
| Tensile Elongation (Break) | > 800 % | > 800 % | ASTM D638 ¹ |
| Flexural Modulus | 100000 psi | 689 MPa | ASTM D790 ¹ |
| Hardness | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Durometer Hardness (Shore D) | 55 | 55 | ASTM D2240 ¹ |
| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Brittleness Temperature | < -148 °F | < -100 °C | ASTM D746A ¹ |
| 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)

