



DOW™ Electrical & Telecommunications DFDA-4850 NT Polyethylene Thermoplastic Start-up and Transition Material

Overview DFDA-4850 NT is a low density, thermoplastic, unfilled polyethylene compound designed for starting-up and shutting-down medium and high voltage (5 kV and higher) power cable insulation extruders. It has a high degree of cleanliness required for these applications. DFDA-4850 NT is a nominal 2.0 melt index, 0.92 density, high pressure LDPE resin that has been stabilized with an antioxidant system that is compatible with HFDB-4201 EC, HFDB-4201 SC and HFDB-4202 EC.

Cleanliness Requirements

DFDA-4850 NT is required to meet strict standards for cleanliness as established by The Dow Chemical Company for an unfilled, thermoplastic insulation purge-type compound. The product is tested to ensure a high level of cleanliness. Pellet samples are visually inspected and extruded tapes are scanned by an automatic inspection system in a class 10,000 clean room. The purity data is managed using an acceptance sampling plan which ensures that the product in the shipping container meets or exceeds the required cleanliness standards.

Additive • Antioxidant

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm ³	0.920 g/cm ³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	2.0 g/10 min	2.0 g/10 min	ASTM D1238

Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	241 to 284 °F	116 to 140 °C

Extrusion Notes

DFDA-4850 NT is a thermoplastic compound designed to be compatible with power cable insulation compounds produced by The Dow Chemical Company. Although DFDA-4850 NT is a thermoplastic material and can withstand higher extrusion melt temperatures than vulcanizable compounds, melt extrusion temperatures in the range of 240 to 280°F (116 to 140°C) are recommended. This melt temperature range is recommended to reduce the potential for premature crosslinking (or scorch) in the vulcanizable compound when transitioning to or from DFDA-4850 . Process modifications should not be required during transitions to or from the DFDA-4850 NT and HFDB-4201 EC, HFDB-4201 SC or HFDB-4202 EC.

Notes

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

