



DOW™ Electrical & Telecommunications DFDA-1254 NT Low Density Polyethylene Insulation Compound

Overview

DFDA-1254 NT is a low density polyethylene insulation resin produced to a demanding set of electrical properties specifications. DFDA-1254 NT can be used as part of the resin system in the gas injection process for coaxial cable foamed insulation.

Specifications

DFDA-1254 NT meets the following specification:

- ASTM D 1248 Type 1, Class A, Category 3

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.918 g/cm ³	0.918 g/cm ³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	1400 psi	9.65 MPa	ASTM D638
Tensile Elongation (Break)	500 %	500 %	ASTM D638
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	> 1.0E+17 ohms·cm	> 1.0E+17 ohms·cm	ASTM D257
Dielectric Strength ¹ (0.125 in (3.18 mm))	1100 V/mil	43 kV/mm	ASTM D149
Dielectric Constant			ASTM D1531
1 MHz	2.29	2.29	
2.47 GHz	2.27	2.27	
Dissipation Factor			ASTM D1531
1 MHz	1.0E-4	1.0E-4	
2.47 GHz	3.0E-4	3.0E-4	
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	338 to 392 °F	170 to 200 °C	

Extrusion Notes

DFDA-1254 NT provides excellent surface finish and outstanding output rates over a broad range of conditions. For optimum results, use melt extrusion temperatures in the suggested range of 338 to 392°F (170-200°C). However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known. Please contact your local Dow Chemical Wire and Cable Sales Representative for such particulars.

Notes

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

¹ Method A (Short-Time)

