

Technical Information



AXELERON™ FO 1311 NT CPD

Overview

AXELERON™ FO 1311 NT CPD is a high-performance compound with an outstanding balance of processability and toughness. It is designed for use in Submarine fiber optical cable as well as other power and telecommunication jacketing. AXELERON™ FO 1311 NT CPD also has excellent electrical properties, superior environmental stress crack resistance and excellent UV resistance.

Specifications

AXELERON™ FO 1311 NT CPD meets the following material specification:

- ASTM D-1248 Type III, Class A, Category 5, Grade E9

Cables jacketed with AXELERON™ FO 1311 NT CPD, using industry standard commercial extrusion practice, should meet the following cable specifications:

- IEC 60502, ST 7
- IEC 62067, ST 7
- IEC 60840, ST 7
- ICEA S-94 649
- ICEA S-108 720
- ICEA S-97 682
- ICEA-S-87-640
- IEC 60794

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	0.954 g/cm³	0.954 g/cm³	ASTM D792
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.30 g/10 min	0.30 g/10 min	
190°C/21.6 kg	28 g/10 min	28 g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 10% Igepal, F0	1400 hr	1400 hr	
Melt Flow Ratio - (I21/I2)	93.0	93.0	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹	4350 psi	30.0 MPa	ASTM D638
Tensile Elongation ¹	750 %	750 %	ASTM D638
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore D)	61	61	ISO 868
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Crystallization Temperature	246 °F	119 °C	ASTM D3418
Oxidation Induction Time - in Al pan (392°F (200°C))	> 50 min	> 50 min	ASTM D3895
Aging	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Aging			IEC 60811
Retention of Tensile Elongation after 10 days : 230°F (110°C)	84 %	84 %	
Retention of Tensile Strength after 10 days : 230°F (110°C)	100 %	100 %	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	> 1.0E+14 ohms·cm	> 1.0E+14 ohms·cm	ASTM D1238
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
UV and Thermal Ageing - Retention of elongation after 1000 hrs of UV aging	> 50 %	> 50 %	ASTM G154



Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	266 °F	130 °C

Extrusion Notes

Dow AXELERON™ FO 1311 NT CPD provides excellent surface finish at high coating speeds. For optimum results, use melt extrusion temperatures in the suggested range of 450 to 480°F (230-250°C). However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known.

Notes

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

¹ Plaque molded and tested in accordance with ASTM D4976.



Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Medical Applications Policy

Any and all medical application use of Dow materials, whether a device, a component, or any type of primary or secondary packaging of a medically related object or substance, needs to be reviewed and approved by Dow before any Dow material can be tested in such application.

Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use. **DOW MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY DOW PRODUCT FOR USE IN MEDICAL APPLICATIONS.**

For further information contact your Dow sales or technical representative to request a Medical Application Review Request Form.

Additional details of Dow's Medical Applications Policy are available at: <https://www.dow.com/en-us/support/product-safety.html>

Tobacco and Marijuana Policy

Dow does not support or intend for its products to be used, directly or indirectly, in the production of tobacco, the manufacture of tobacco products, the manufacture and use of electronic cigarettes (including vaping devices), the production of marijuana, or the manufacture of marijuana products intended for human consumption, where the Dow product (or its residues) may be present in the finished product or be alleged to facilitate the delivery of nicotine, other tobacco components, marijuana, or marijuana components.

Harmful Applications Policy

Dow does not intend for its products to be used in applications specifically intended to harm humans.

Disclaimer

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

NOTICE: If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; (3) there is greater potential for Dow to change specifications and/or discontinue production; and (4) although Dow may from time to time provide samples of such products, Dow is not obligated to supply or otherwise commercialize such products for any use or application whatsoever.

NOTICE: This data is based on information Dow believes to be reliable, as demonstrated in controlled laboratory testing. They are offered in good faith, but without guarantee, as conditions and method of use of Dow products are beyond Dow's control. Dow recommends that the prospective user determine the suitability of these materials and suggestions before adopting them on a commercial scale.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability for the accuracy and completeness of such information.

For additional information, not covered by the content of this document, contact us via our web site http://www.dow.com/products_services/.





شركة بترومول للتجارة والصناعة

PETROMALL INDUSTRY & TRADING CO

Additional Information

www.dow.com

North America

U.S. & Canada:

1-800-441-4369

1-989-832-1426

Mexico:

+1-800-441-4369

Latin America

Argentina:

+54-11-4319-0100

Brazil:

+55-11-5188-9000

Colombia:

+57-1-219-6000

Mexico:

+52-55-5201-4700

Europe/Middle East

+800-3694-6367

+31-11567-2626

+800-783-825

Italy:

South Africa

+800-99-5078

Asia Pacific

+800-7776-7776

+603-7965-5392

This document is intended for use within Asia Pacific, Europe

Published: 2021-09-21

© 2023 The Dow Chemical Company



petromall.net



info@petromall.ps



+970 599 2020 64



Hebron - Palestine

فلسطين - الخليل

+972 2 2233840

