# AXELERON™ CX 6923 NT CPD

## Overview

AXELERON™ CX 6923 NT CPD is a high density polyethylene compound designed for use in physical foaming processes where high expansion rates (60 - 80%) are required. This compound is designed to offer excellent high speed processability as given by low extrusion pressures and smooth insulation surface quality. Furthermore, since it is fully pre-compounded with all the necessary ingredients, it offers better dispersion of the nucleating agent allowing higher expansion rates to be achieved with more consistent processability (capacitance and diameter). It is stabilized for long term cable performance with minimal impact on signal attenuation.

Applications:

Typical applications include conventional 75 Ohm CATV cables and LAN cables.

Specifications:

AXELERON™ CX 6923 NT CPD meets the following material specifications:

- ASTM D 1248 Class A, Type III, Category 3
- ISO 1875-PE, KGHN, 45-D-045

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 0.946 | g/cm³ | 0.946 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (140°C/5.0 kg) | 5.6 | g/10 min | 5.6 | g/10 min | ISO 1133 |
| **Mechanical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Strength [1] | 2900 | psi | 20.0 | MPa | IEC 60811-501 |
| Tensile Elongation [1] (Break) | 1100 | % | 1100 | % | IEC 60811-501 |
| **Hardness** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Shore Hardness [2] (Shore D) | 64 | | 64 | | ISO 868 |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Oxidation Induction Time - Aluminum pan (392ºF) | 20 | min | 20 | min | IEC 60811-410 |
| **Electrical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Dielectric Constant (2.47 GHz) | 2.40 | | 2.40 | | IEC 60250 |
| Dissipation Factor (2.47 GHz) | 1.2E-4 | | 1.2E-4 | | IEC 60250 |

| Extrusion | Nominal Value | (English) | Nominal Value | (SI) |
|---|---|---|---|---|
| Melt Temperature | 338 to 374 | °F | 170 to 190 | °C |

**Extrusion Notes**

AXELERON™ CX 6923 NT CPD can be processed using a range of commercial gas injection systems.

It is normally extruded with a target melt temperature of 170 - 190 °C. Typical barrel temperatures required depend on extruder size and construction being made but a good starting point is:

- Feed zone: 140 - 150 °C
- Transition zone: 160 - 170 °C
- Injection Point: 180 - 190 °C
- Metering zone: 180 - 190 °C
- Cross head and Die: 180 - 190 °C

## Notes

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

[1] Measured on extruded tape

[2] Measured on compression moulded plaques



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