

ETFE C4003

Everflon+™ Fluoropolymers Compound

Low MFR static dissipative resin

DESCRIPTION

Everflon+™ ETFE C4003 resin combines the chemical and high-temperature resistance of Everflon™ ETFE with antistatic levels of electrical conductivity. Everflon+™ ETFE C4003 and the other Everflon™ ETFE fluoroplastics are melt processible, modified copolymers of ethylene and tetrafluoroethylene. They are high-performance resins that can be processed at relatively high rates, compared to other fluorocarbon resins. They are mechanically tough and offer an excellent balance of properties.

Everflon+™ ETFE C4003 can perform successfully in applications where other thermoplastics are lacking in mechanical tough-

ness, broad thermal capability, ability to meet difficult environmental conditions, or limited by fabricating problems.

Properly processed products made from neat Everflon+™ ETFE C4003 are inert to most solvents and chemicals, hydrolytically stable, and weather-resistant. The recommended upper service temperature is 175 °C; useful properties are retained at cryogenic ranges.

Mechanical properties include outstanding impact strength, cut-through, and abrasion resistance. The main advantage of Everflon+™ ETFE C4003 is that it has improved stress crack resistance and flexibility when compared to other static-dissipating Everflon+™ ETFE C4010 resins. To gain stress crack resistance.



DATA LIST

Tentative Typical Property Data for Everflon™ ETFE C-4003 Fluoropolymer Resin

Property	Test Method		Unit	Typical Value
GENERAL				
Melt Flow Rate /5.0 kg weight	ISO 12086	ASTM D3159	g/10 min	3
Melting Point	—	ASTM D3159	°C	260
Specific Gravity	—	D792	—	1.7
Upper Service Temperature	—	—	°C	175
MECHANICAL				
Tensile Strength	ISO 12086	ASTM D3159	MPa (psi)	36 (5200)
Elongation	ISO 12086	ASTM D3159	%	300
ELECTRICAL				
Volume Resistivity	ISO 3915	ASTM D257	ohm-cm	---
OTHER				
Weather and Chemical Resistance	—	—	—	Excellent

Note: For more information of ETFE properties, please visit www.everflon.com or ETFE Tech-Handbook.
Typical properties are not suitable for specification purposes.

TYPICAL APPLICATIONS

Everflon+™ ETFE C-4003 resin can be used to manufacture extruded tubing, pipe, and other profiles for hose; linings of components used in the chemical processing industries; industrial film; and injection- and blow-molded articles requiring superior electrical, chemical, and thermal properties and stress crack resistance.

PROCESSING

Everflon+™ ETFE C-4003 can be processed by conventional thermoplastic techniques, such as by melt-extrusion or injection, compression, transfer, and blow-molding processes.

Drying at 100–130 °C (212–266 °F) in a dehumidified oven for 4 hr is suggested to remove any absorbed moisture.

Reciprocating screw injection molding machines are preferred. Corrosion-resistant metals should be used in contact with molten resin from 300–345 °C (570–650 °F).

PRECAUTION

Before using Everflon+™ ETFE C-4003 resin, refer to the Safety Data Sheet and the latest edition of “The Guide to the Safe Handling of Fluoropolymer Resins”

Open and use containers only in well-ventilated areas using local exhaust ventilation (LEV). Vapors and fumes liberated during hot processing of Everflon+™ ETFE C-4003 should be exhausted completely from the work area. Contamination of tobacco with these polymers must be avoided. Vapors and fumes liberated during hot processing that are not properly exhausted, or from smoking tobacco or cigarettes contaminated with Everflon+™ ETFE C-4003, may cause flu-like symptoms, such as chills, fever, and sore throat. This may not occur until several hours after exposure and will typically pass within about 24 hours. Mixtures with some finely divided metals, such as magnesium or aluminum, can be flammable or explosive under some conditions.

HANDLING & PACKAGE

The properties of Everflon+™ ETFE C-4003 resins are not affected by storage time. Ambient storage conditions should be designed to avoid airborne contamination and water condensation on the resin when it is removed from containers. Drying at 100–130 °C (212–266 °F) for 4 hours is suggested to remove any absorbed moisture.

Everflon+™ ETFE C-4003 is supplied as pellets and packaged in 20-kg drums with a polyethylene inner lining.

ABOUT C&F AND EVERFLON FLUOROPOLYMERS

Everflon™ is brand of C&F Group dealing in fluoropolymers materials including PTFE.FEP.PFA.ETFE and PVDF. On the basis of Everflon, C&F also developing the fluoropolymer applications including tubing,coating and films.

More information could visit www.everflon.com or Everflon™ Fluoropolymers Introduction and C&F Chemicals Book



For more information, visit www.everflon.com
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