

Fluon[®] AR-8018TD TFE Copolymer Alloy *Typical Properties*

DESCRIPTION

Fluon[®] AR-8018TD is a melt-processable compound based on a modified ethylene / tetrafluoroethylene (ETFE) polymer and a proprietary fluoroelastomer. Fluon[®] AR-8018TD maintains many of the desirable properties of ETFE, but in a form that is much more flexible. This product is supplied in cylindrical pellet form approximately 0.125" long by 0.080" diameter.

TYPICAL PHYSICAL PROPERTIES

Property	Units	Test Method	Typical Value
Bulk Density	g/L	ASTM D-1895	850
Melt Flow Rate	g/10 min	ASTM D-2116	6.0
Melt Point	°C	AGC Internal	256
Average Pellet Diameter	in	AGC Internal	0.080
L* CIELAB	(CIELAB, 10° obs, D65)	AGC Internal	40
a* CIELAB	(CIELAB, 10° obs, D65)	AGC Internal	0
b* CIELAB	(CIELAB, 10° obs, D65)	AGC Internal	0

NOTE: The data listed here represents typical values for the stated grades of Fluon[®] Melt Processable Compounds. This information should be used as a guide only and not to establish specification limits or design criteria. AGC Chemicals Americas assumes no obligation or liability for any advice furnished by us or for results obtained with respect to this product. All such advice is provided free of charge and the buyer assumes sole responsibility for results obtained in reliance thereon.

APPLICATIONS

- Wire and Cable (automotive, industrial, aerospace, transit, and appliance markets)
- Films and Sheets
- Tubing and Pipe
- Electrical Components

BENEFITS

- High resistance to heat
- Excellent chemical resistance
- Outstanding physical toughness
- Low smoke and flame characteristics
- Good dielectric properties
- Much more flexible than conventional ETFE
- Excellent processability

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PROCESSING

This product can be processed using conventional thermoplastic techniques such as compression and injection molding and melt extrusion under standard ETFE operating conditions. It is strongly recommended that process equipment exposed to molten resin be made of corrosion-resistant metals such as Monel, Inconel, or Hastelloy. Extruder barrels should be long relative to diameter (24/1 to 30/1 and beyond) and heaters should have adequate capacity to heat the material to approximately 340°C. Temperature controllers should be of the proportional-integral derivative (PID) type to insure precise temperature control. Extruder screws with a 3/1 compression ratio, a relatively long feed zone, and a ½ to 3 turn transition zone are recommended. Reciprocating screw injection molding machines are preferred.

HANDLING PRECAUTIONS

Heating Fluon[®] products in excess of 750°F (399°C) can produce toxic fumes. It is, therefore, necessary to provide local exhaust ventilation in areas where Fluon[®] products are exposed to high temperatures. Avoid breathing fumes or contaminating smoking tobacco with fumes, powder, or dust.

Thermal decomposition of this product will generate hydrogen fluoride, which is corrosive. Corrosion resistance materials are required for prolonged contact with molten resin.

SAFE HANDLING INFORMATION

A summary of the hazards, as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200 for this product are:

Physical hazards: None

Health hazards: None

FOR ADDITIONAL INFORMATION AND HANDLING INSTRUCTIONS READ AGC CHEMICALS AMERICAS, INC. MATERIAL SAFETY DATA SHEET.

For more information and samples contact

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