

Fluon+ AR-3300N

DESCRIPTION

Fluon+ AR-3300N is a melt-processable compound based on a modified ethylene / tetrafluoroethylene (ETFE) polymer and a proprietary fluoroelastomer. Fluon+ AR-3300N maintains many of the desirable properties of ETFE, but in a form that is much more flexible. It is processable by conventional extrusion and injection molding techniques.

PRODUCT DEVELOPMENT

This data was secured during the course of product development. Both the properties and the product are subject to change prior to final commercialization

BENEFITS

- High resistance to heat
- Excellent chemical resistance
- Good dielectric properties
- Much more flexible than conventional ETFE
- Excellent processability

APPLICATIONS

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

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 280°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.

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AGC

Your Dreams, Our Challenge

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Fluon+ AR-3300N

FLUON+ AR-3300N TYPICAL PROPERTIES

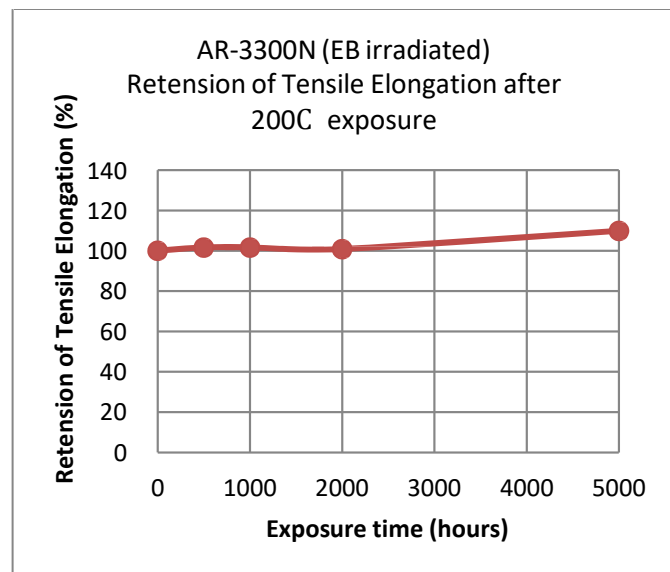
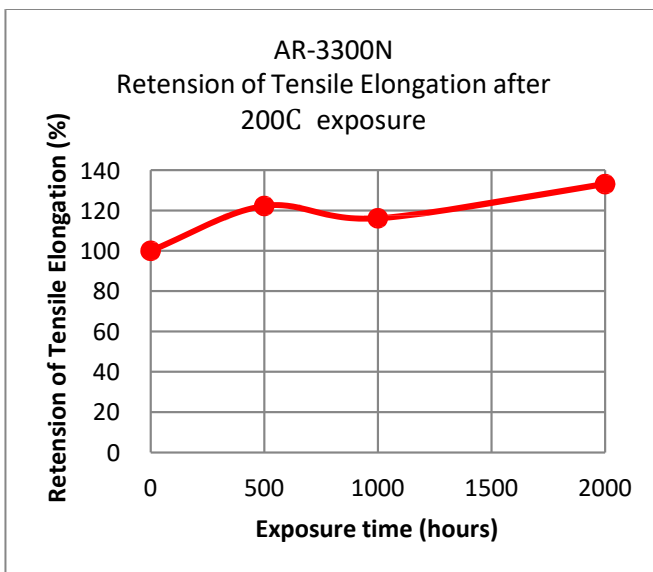
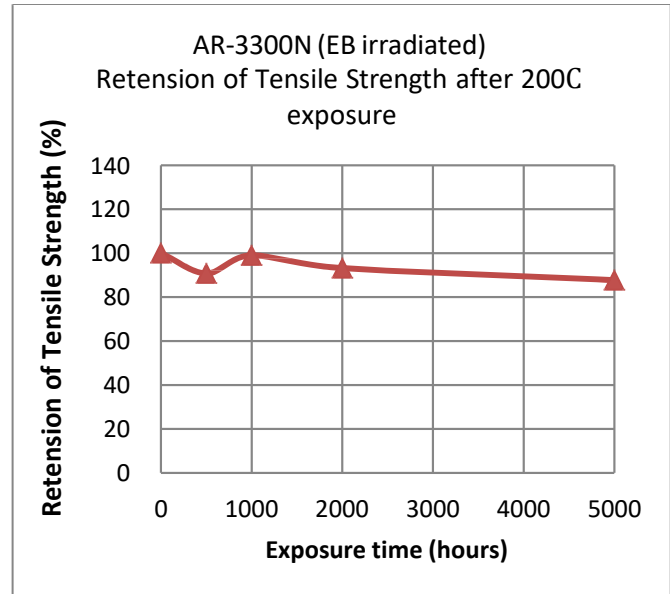
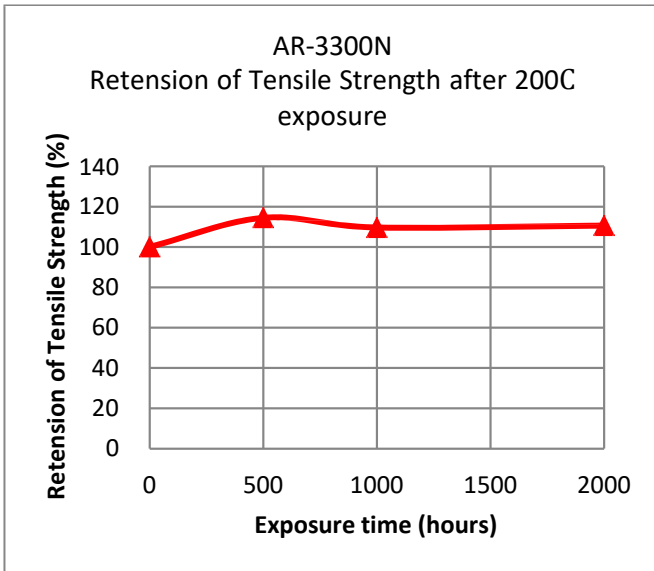
Property	Standards	Units	Fluon+ AR-3300N	With EB irradiation 120 kGy
Melt Flow Rate (MFR)	ASTM D-2116	g/10min	8.7	NA
Melting Point	AGC Internal	°C	225	NA
Tensile Strength	ASTM D638	MPa	10.4	29.3
Tensile Elongation	ASTM D638	%	441	366
Flex Modulus	ASTM D790	MPa	141	148
Durometer Hardness	ASTM D1706	Shore D	42	44
Flammability	UL 94		V-2	V-2

RECOMMENDATION

Electron Beam (EB) irradiation cross-linking is recommended for Fluon+ AR-3300N to maximize its performance. Gamma ray irradiation is also applicable.

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FLUON+ AR-3300N THERMAL RESISTANCE PROPERTIES



Fluon+ AR-3300N

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. SAFETY DATA SHEET

For more information and samples contact

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NOTE: The data listed here represents typical values for the R&D sample. 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