

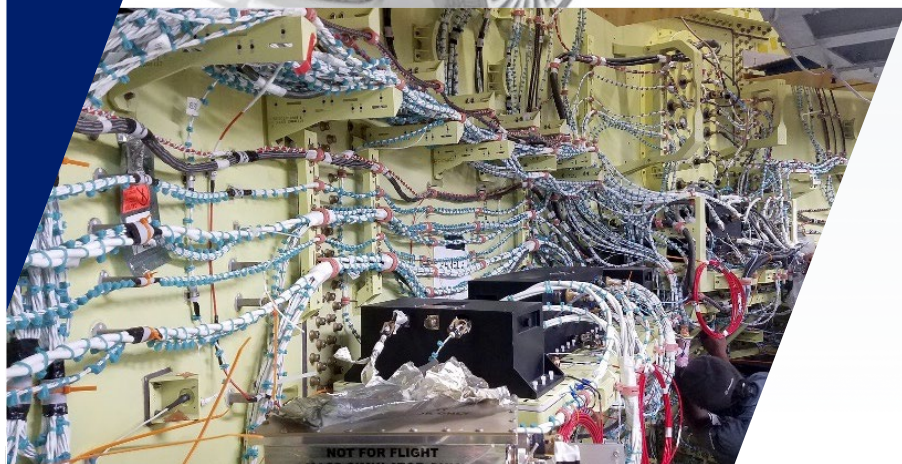
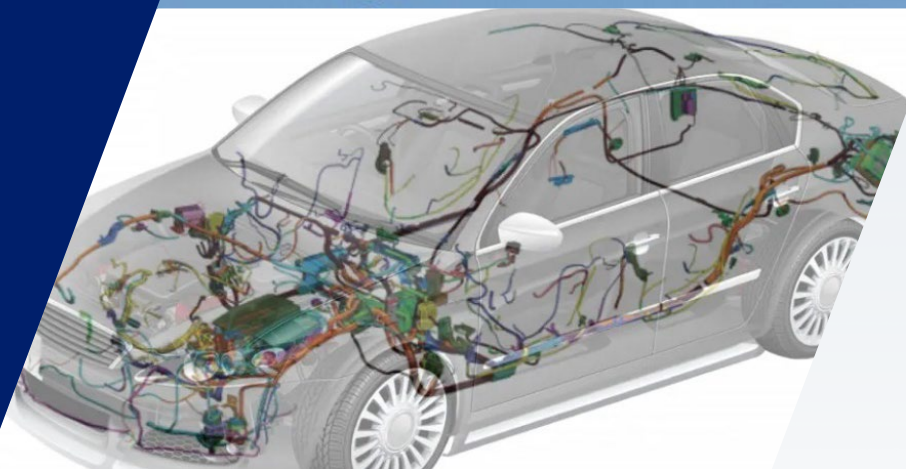


Alternatives to THV for High Performance Applications

AGC Chemicals Americas, Inc.



Your Dreams, Our Challenge



We Will Discuss:

- AGC Fluon+™ Flexible Compounds
- AGC Fluon® LM ETFE

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What are Fluon+ Flexible Products?

- Compounded ETFE with fluoroelastomer
- Processes like ETFE
- Higher elongation than neat ETFE
- Improved flexibility than neat ETFE
- Optional cross-linking to increase strength and operating temperature

Advantages of Fluon+ Flexible Products

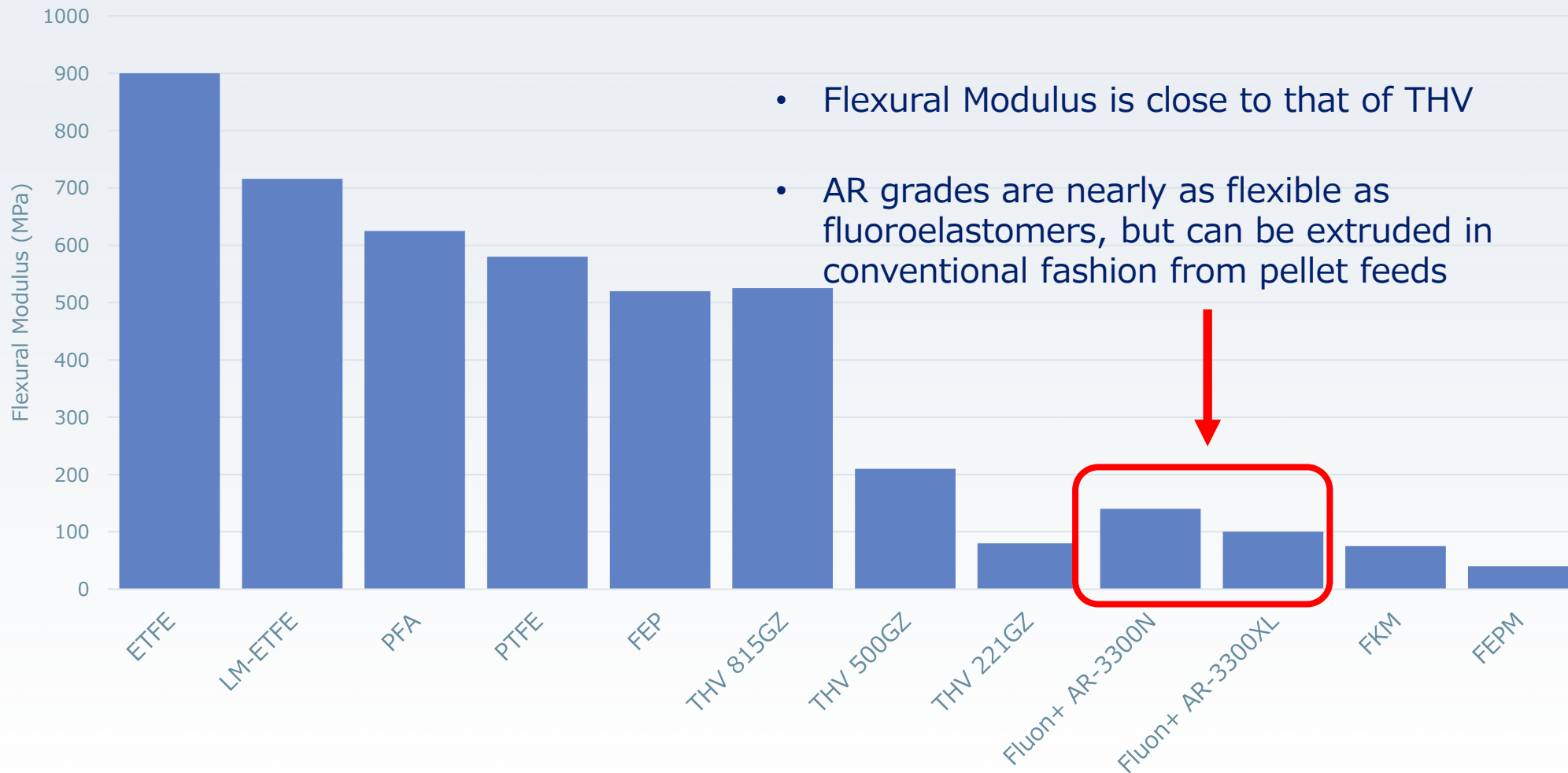
- High chemical resistance
- More durable than fluoroelastomers
- Wide service temperature range (up to 200 °C)
- Can be custom-tailored to meet individual application requirements



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Fluon+ Flexible ETFE

Flexural modulus of various fluorinated materials



Fluon+ Flexible Compounds Applications

- Wire and cable insulation
- Tubing
- Film
- Applications requiring good flexibility, temperature and chemical resistance

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Fluon+ Flexible and Fluon LM-ETFE Compared to THV

Material	THV	LM-ETFE	FLUON+ Flexible
Specific Gravity	1.93-2.06	1.78	1.62-1.64
Tensile Strength	moderate to high	high	moderate to high
Tensile Elongation	high	moderate	high
Flexibility	moderate to high	moderate	high
Flammability UL94	V-0	V-0	V-2 to V-0
Appearance	transparent	transparent	opaque

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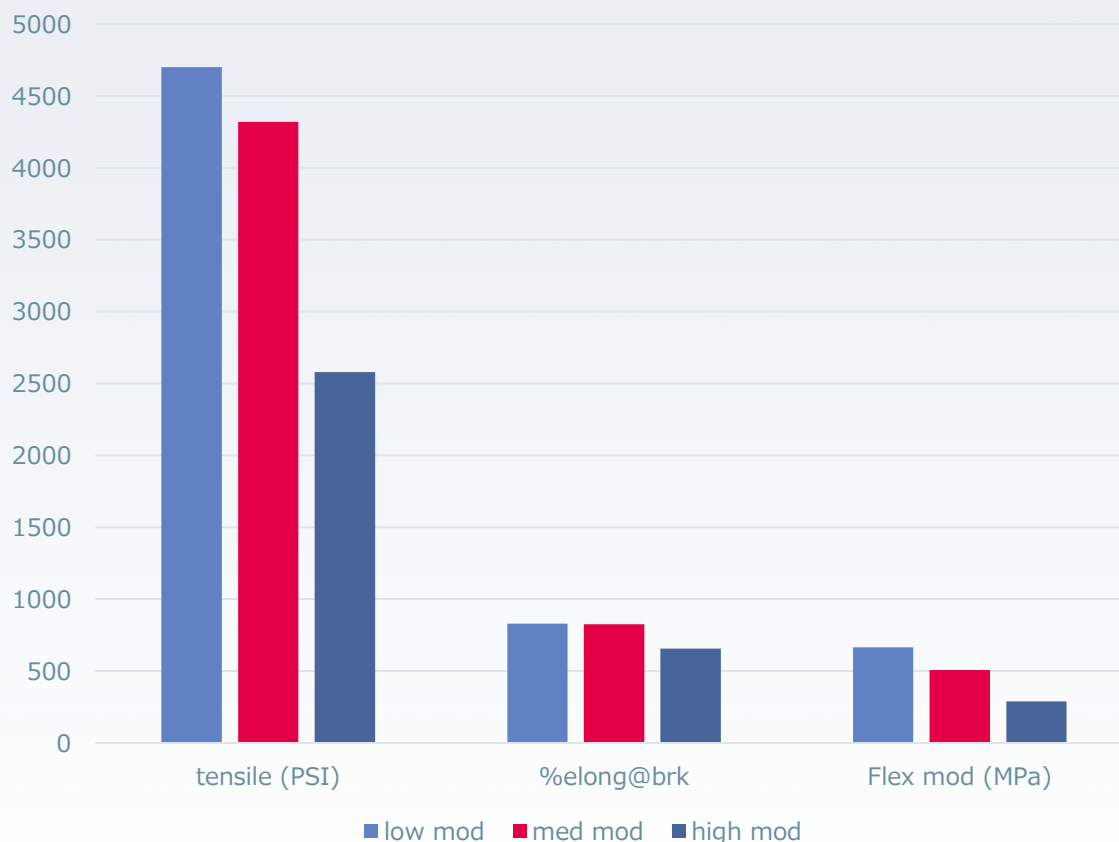
Overview of Fluon+ Flexible Compounds

Grade	AR-3300N	AR-3300P	AR-3300XL	AR-3300LH
Recommended Use	General purpose	V-0 UL rated for flame retardancy	Radiation curable (for extended life)	Enhanced adhesion to metals and other plastics
MFR (g/10min)	9	8	9	9
Service Temperature (°C)	150	150	200 (post-cure)	150

AGC Chemicals Americas can also custom tailor the Fluon+ Flexible Compounds to your individual applications

Benefits to Custom Compounding

Modifier level vs tensile, elongation and flex mod
Fluon+ Flexible series; high temperature ETFE



Higher modifier level =>
Greater flexibility

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Fluon+ Flexible Compounds Can Be Radiation Cured

Fluon+ AR-3300N Typical Properties

Property	Test Method	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

- Elongation decreases a small amount
- Tensile strength increases significantly

Available Colors



- Specifically designed for use in coloring Fluon+ Flexible and Fluon LM ETFE
- Custom color matching capabilities

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The AGC logo is located in the top left corner, featuring the letters 'AGC' in a bold, blue, sans-serif font. A small red square is positioned between the 'A' and 'G'.

AGC

Contact Us for More Information



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