

Reinforced Compounds

Fluon+TM Reinforced Compounds incorporate glass, carbon, or mineral fillers for enhanced dimensional stability, abrasion resistance, or physical strength. These products can be used in demanding applications where the thermal and chemical resistance of a fluoropolymer is required with additional mechanical toughness provided by the addition of a fiber or other reinforcing filler.

Common Products

Resin	ETFE	PFA	FEP	PVDF	ECTFE
Reinforced	Standard	Standard	Custom	Custom	Custom

Typical Physical Properties Measured

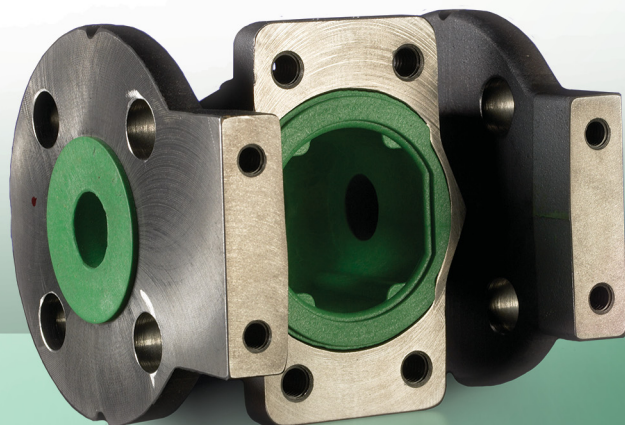
Property	Test Method	Units	Typical Value		
			PF-21001	FP-EF-105	ER-21029
Base Resin	-	-	PFA	ETFE	ETFE
Type of Filler	-	-	Glass	Glass	Carbon Fiber
Melt Flow Rate	ASTM D-3307	g/10 minutes	20	3.5	3.5
Specific Gravity	ASTM D-792	-	2.1	1.89	1.53
Bulk Density	ASTM D-1895	g/L	1200	860	800
Nominal Filler	AGC Internal	%	25	25	20
Tensile Strength	ASTM D-638	MPa	14.5	55	40
Tensile Elongation	ASTM D-638	%	11	2	7

Typical Applications

- Seals
- Chemical pump casings
- Downhole wire
- Chemical processing equipment internals

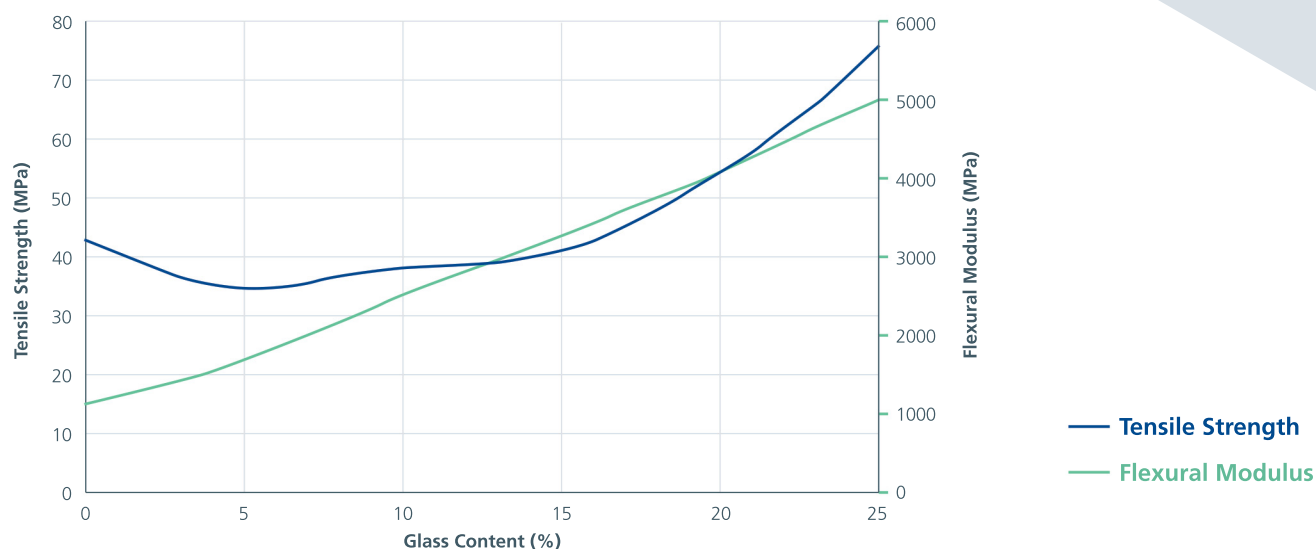
Processing Techniques

- Extrusion
- Injection molding
- Compression molding

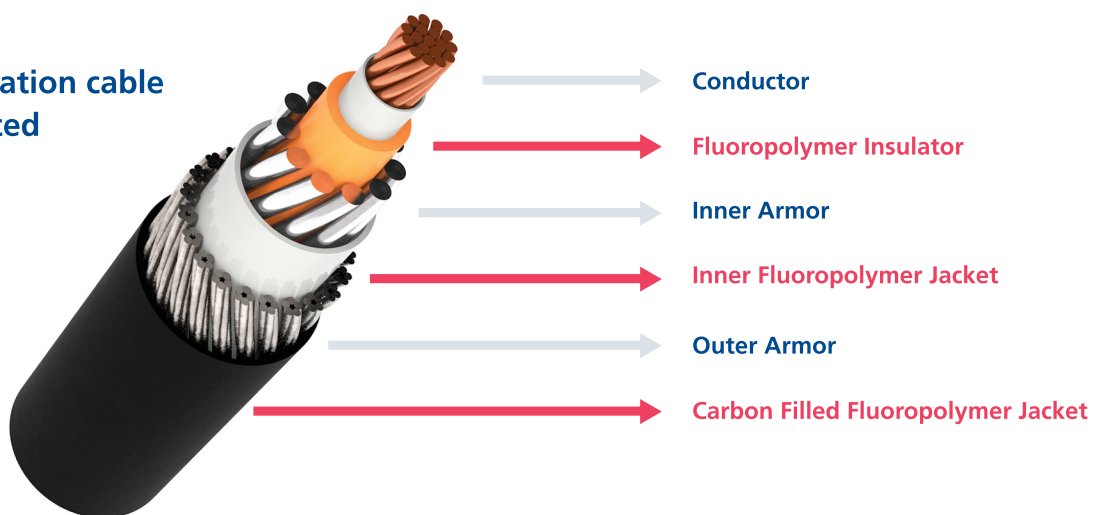


Changes in Mechanical Properties for ETFE-based, Glass Reinforced Compounds

Figure below provides an example of how mechanical properties of ETFE are affected through the use of reinforcing glass fibers.



Downhole oil exploration cable construction reinforced with fluoropolymers



Contact your AGC Chemicals commercial representative for more information on specific grades or for technical datasheets.



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