



AFLAS Fluoroelastomers for High Voltage Cable

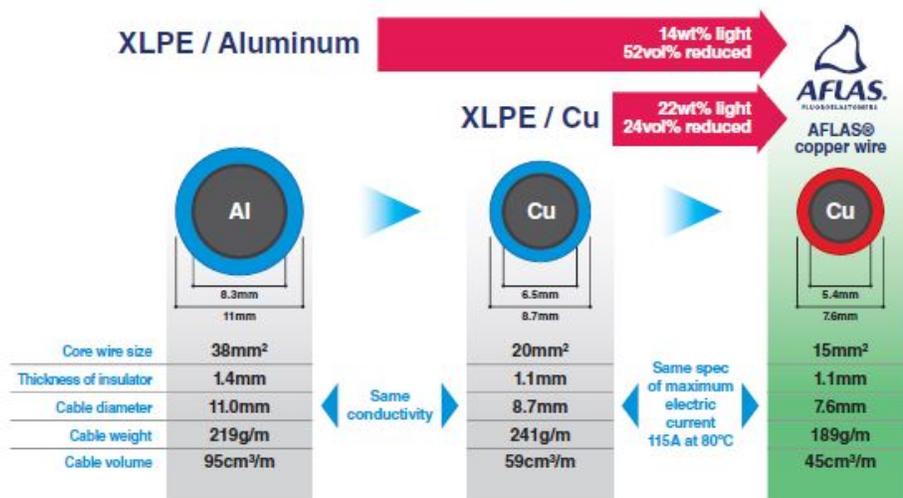
High Performance at Reduced Weight

Lightweight cable construction with sustained performance has become necessary in the automotive industry. AFLAS® Fluoroelastomers are durable, flexible, high temperature (200 °C) electrical insulation rubber materials that allow for thinner wire insulation at equivalent performance levels. Ideal for HEV/EV high voltage cable.

Tehnology

- Non-flammable
- Vibration resistance
- Superior chemical resistance
- Service temperature at 200 °C vs. XL-PE at 150 °C
- Exceptional flexibility over XL-PE which is stiff
- No fillers necessary vs. XL-PE containing MgOH₂

Weight Reduction Concept: Cable Comparison





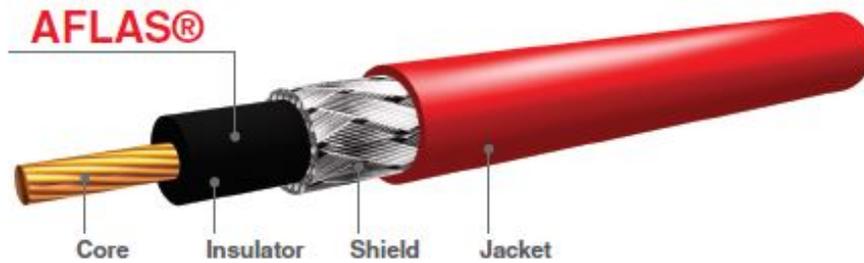
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AFLAS® Performance Data Compared to Other Material Constructions

	AFLAS	Other Fluoroelastomers	Silicone Rubber	Crosslink Polyethylene
	FEPM	FKM	Q as compound	XL-PE as compound
Specific Gravity	1.55	1.8	1.2	1.3
Dielectric Breakdown (kV/mm)	23	20	25	35
Volume Resistivity ($\Omega \cdot \text{cm}$)	10^{16}	10^{13}	10^{16}	10^{16}
Dielectric Constant (1kHz)	2.8	17	3-4	2.3
Flexibility	Excellent	Excellent	Excellent	Applicable
Flame Resistance	Excellent	Excellent	Good	Applicable (with fillers)
Heat Resistance (max operating temp)	200 °C	200 °C	180 °C	150 °C
Oil Resistance	Excellent	Excellent	Not Recommended	Good
Hot Water & Steam Resistance	Excellent	Applicable	Applicable	Good

Excellent	Good	Applicable	Not recommended
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Wire Construction Example



NOTE: The data listed here represents typical values for the stated grades of AFLAS® fluoroelastomers. 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.

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