

## Product Highlights

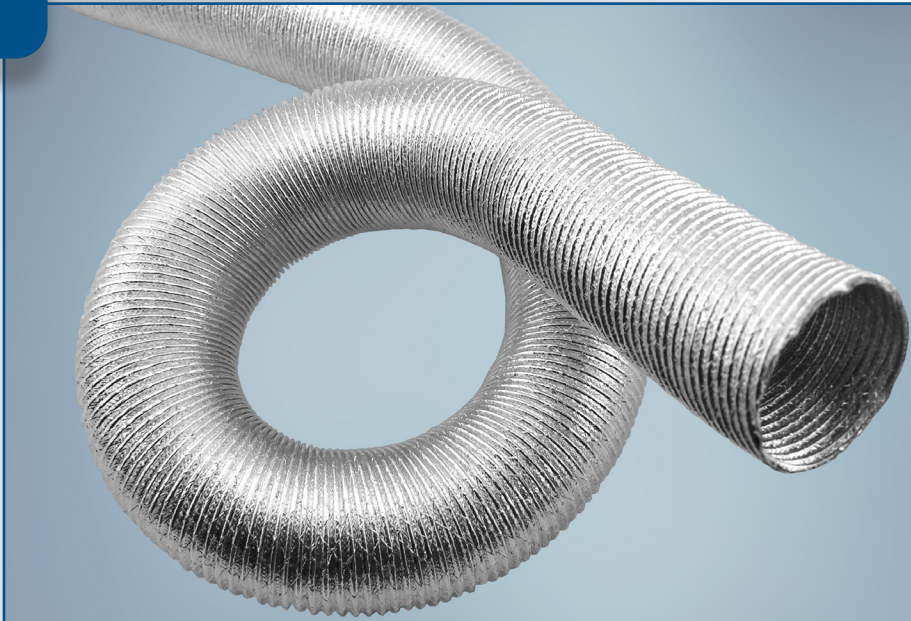
- Operating temperature up to +600°C (+1112°F)
- Underbody durability
- Highly flexible corrugated design
- Maintains shape and circular profile when bent
- Easy to install with crimpable ends
- Tubular and slit forms
- Customizable
- Fray & Fluid resistant

## Typical Applications

- Fuel and hydraulic lines
- Power steering hoses
- Heater / radiator hoses
- Control cables
- TOC lines



Our manufacturing sites are certified ISO 9001, IATF 16949, or AS/EN 9100, ISO 14001 and ISO 45001 (Selected Sites)



**Clevaflex® AFS-F-AFS** is a reflective corrugated tube designed to provide thermal protection for components in radiant heat environments. Its multi-ply construction of aluminum laminated fiberglass coupled with aluminum fiberglass scrim interior and exterior layers allows for good insulation to components requiring stable temperatures for optimum performance efficiency.

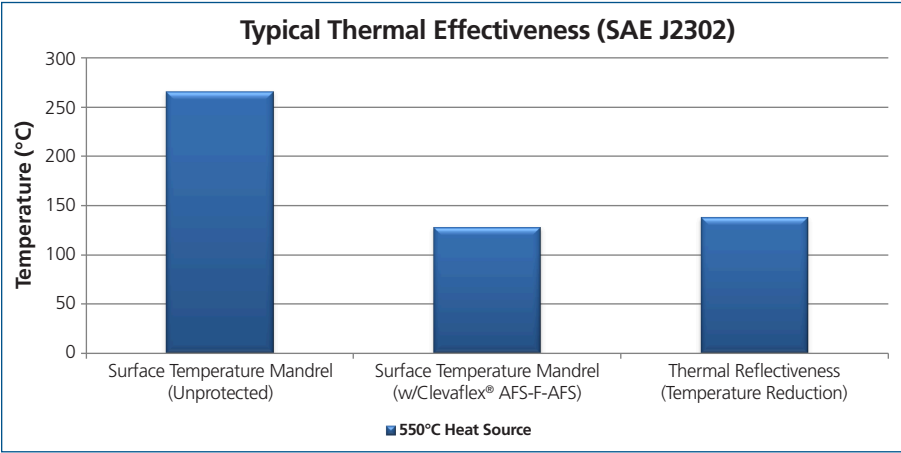
Clevaflex AFS-F-AFS can be used on fuel and hydraulic lines, control cables, and any other critical components in close proximity to engine and exhaust systems. The raw materials and proprietary manufacturing process used to form this layered product allow Clevaflex AFS-F-AFS to withstand high operating temperatures up to +400°C (+752°F) and excursion temperatures up to +600°C (+1112°F) while also providing durability in the high vibration and underbody conditions inherent in automotive applications. The manufacturing process produces a lightweight convoluted sleeve that can be precisely bent and routed without degradation or frayed ends. The highly engineered construction also allows for customization (slits, slots or notches) to increase the ease of installation along with enabling its positioning on the application due to its ability to be crimped at the ends.

# Performance Data – Clevaflex® AFS-F-AFS

Property	Test Method	Result
Temperature Rating	240 hours at +425°C (400°C rating)	Pass +400°C (+752°F)
	3,000 hours at +350°C	Pass +350°C (+662°F)
	24 hours at +600°C	Pass +600°C (+1112°F)
Low Temperature Flexibility	SAE J2192	Pass -40°C (-40°F)
Flammability	SAE J369	Self-extinguishing
Fluid Resistance	SAE J2192	Pass
Stone Impingement	SAE J400	Pass, no holes in product

All numeric performance data shows average or typical values. Please consult your sales representative for product drawings, test reports and OEM approvals.

## Thermal Effectiveness of Sleeving Insulation



Note: Mandrel is parallel to and 25mm (1") away from heat source

## Availability

This product is available in a wide range of sizes, new sizes can be designed upon request. Please contact us to learn more.

Available in tubular and slit form. Customization for optimal installation also available

Available in custom cut lengths. Recommended cut lengths are in 5mm increments. Please see regional drawings for cut length tolerances.

Please consult your local sales representative for regional packaging details and standards.

## Construction and Typical Product Characteristics

Outer Layer:	Reflective Laminate
Middle Layer:	Fiberglass
Inner Layer:	Reflective Laminate



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