

Clevaflex® Thermal Sleeves

Thermal Protection For Hoses, Cables & Other Critical Components

Clevaflex® Thermal Sleeves are convoluted, multi-ply sleeves of woven fiberglass, aluminum or stainless steel, mechanically overlapped, then bonded to each other with a thermosetting adhesive.

Clevaflex Thermal Sleeves provide excellent protection from internal and external sources of radiant and reflected heat. The Thermal Sleeves protect a variety of critical components, including hoses, cables, liquid lines and wire assemblies, with sleeve surface temperatures up to 650°C. Thermal Sleeves are resistant to extreme heat, fluids and mechanical abrasion.

The proprietary manufacturing process produces strong and lightweight convoluted sleeves that can be precisely bent and routed without degradation or frayed ends. Thermal Sleeves have a highly engineered appearance and allow for custom ends (slits, slots or notches) to increase thermal protection and easy installation. In addition, Thermal Sleeves are available in the Super style whereby the wall height is increased to improve flexibility and thermal performance. Thermal Sleeves are available in diameter sizes from 12mm to 405mm.

Typical Applications:

- Power steering hoses
- Air conditioning hoses
- Heater / Radiator hoses
- TOC lines
- Fuel lines
- Wire assemblies
- Brake lines or hoses

Features:

- Superior thermal protection
- Aesthetically appealing
- Multiple color options
- Fray resistant
- Crush resistant
- High strength-to-weight ratio
- Fluid resistant
- Abrasion protection
- Easy to install and route
- Custom end finishing (slit or notch)

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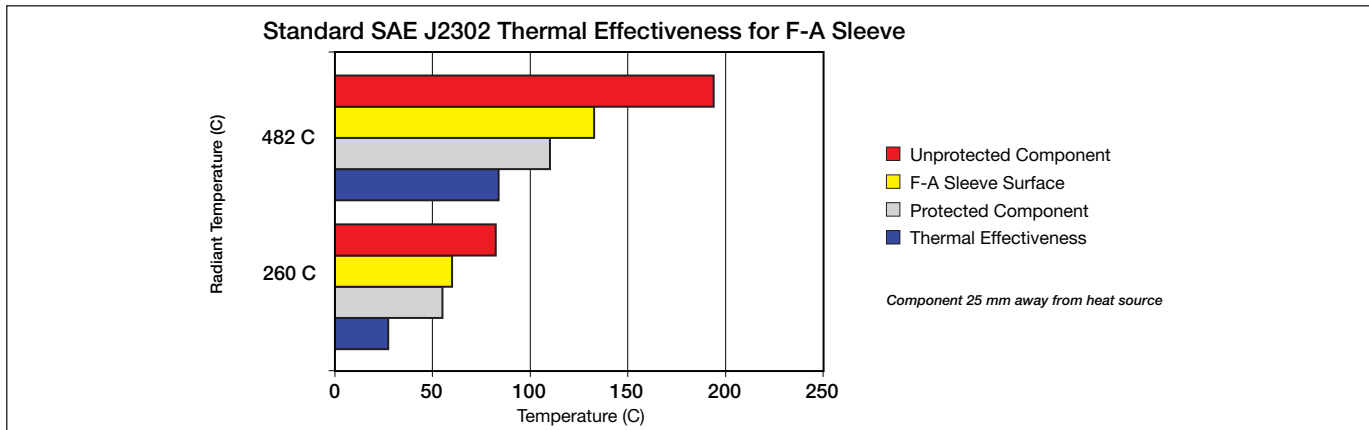
Typical Clevaflex Thermal Sleeve applications:
wire harness and spark plug wire protection.

Sleeve Construction		
Sleeve Types	Materials (Inside to Outside)	Wall Construction
A-A	Aluminum - Aluminum	Regular/Super
F-A	White Fiberglass - Aluminum	Regular/Super
F-AFS	White Fiberglass - Aluminum Foil Scrim	Regular/Super
F-M-A	White Fiberglass - Mylar - Aluminum	Regular/Super
F-SS	White Fiberglass - Stainless Steel	Regular

Clevaflex Thermal Sleeves can be designed with a variety of materials to meet specific applications.

Performance Data		
Test	Property	Results
Heat Aging	10 hours at 350°C	No Delamination
Long Term Durability	500 hours at 232°C	No Delamination
Thermal Endurance	6 hours 12mm away from a 550°C heat source	No Delamination
ASTM D4723, Method 36	Vertical Flammability	Pass
ASTM D1876	Fluid Resistance	No Delamination in Water, Salt Water, Brake Fluid or Motor Oil
Compression Strength	Radial Compression of 196N	Outer Diameter Strain Less Than 10%

Clevaflex Performance Data is based on tests performed on F-A and A-A Sleeves



For material specifications, product drawings, other information or to purchase this product, please contact our sales and engineering offices at 216-941-6505.



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