

# Clevaflex® Exhaust Sleeves

Protect Adjacent Components From Radiant Heat

**Clevaflex® Exhaust 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 Exhaust Sleeves offer complete 360° thermal protection for critical components when covering exhaust pipes, EGR tubes, down tubes or ducting carrying hot gases or liquids. Exhaust Sleeves also help maintain internal temperatures by reducing heat loss. Exhaust Sleeves can withstand internal surface temperatures up to 595°C when made with aluminum and 1370°C when made with stainless steel.

The proprietary manufacturing process enables the convoluted Exhaust Sleeves to be lightweight and crush-resistant, yet capable of being routed and precisely bent without degradation or frayed ends. In addition, Exhaust Sleeves are available in the Super style whereby the wall height is increased to improve flexibility and thermal performance. Exhaust Sleeves are available in diameter sizes from 12mm to 405mm.

## **Primary Applications:**

- Exhaust pipes
- Downpipes
- EGR Systems
- Ram Air / Turbo Systems

## **Features:**

- Excellent protection from internal heat sources
- Attractive, highly-engineered appearance
- Flexible, easy to install and route
- Provide noise dampening
- Crush resistant
- High strength-to-weight ratio
- Fluid resistant
- Fray resistant
- No tooling charge vs. stamped heat shields
- Custom end finishing (slit or notch)

**Clevaflex®**



# Clevaflex® Exhaust Sleeves

Protect Adjacent Components  
From Radiant Heat

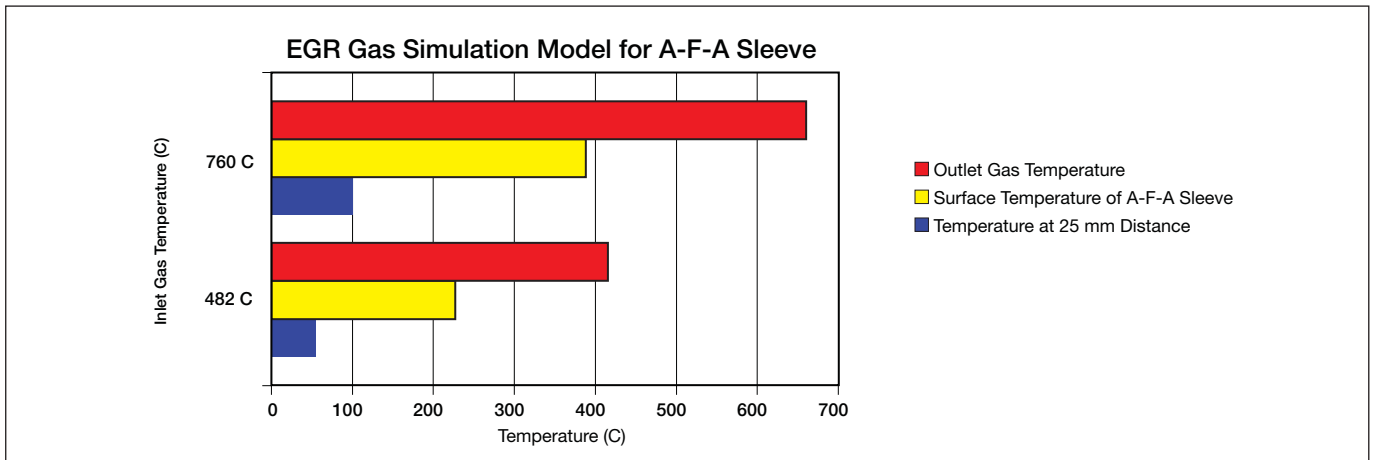


Sleeve Construction		
Sleeve Types	Materials (Inside to Outside)	Wall Construction
A-A	Aluminum - Aluminum	Regular/Super
Ex-Flex	Aluminum - Black Aluminum	Super
A-F-A	Aluminum - White Fiberglass - Aluminum	Regular/Super
F-SS/SS	White Fiberglass - Stainless Steel - Stainless Steel	Regular
SS-F-SS	Stainless Steel - White Fiberglass - Stainless Steel	Regular

Clevaflex Exhaust 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
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 A-F-A, A-A and Ex-Flex Sleeves



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

## Clevaflex®

**Clevaflex**  
4081 West 150th Street  
Cleveland, Ohio 44135  
**216.941.6505**  
216.941.8742 Fax  
www.clevaflex.com  
info@clevaflex.com

The foregoing specifications and illustrations are for informational purposes only. Nothing contained therein is intended to, nor shall it be construed as, a representation, warranty or guaranty of any type, including the fitness of the product for any purpose. Users are encouraged to make their own evaluations and to conduct their own testing to determine the suitability of any of our products for a specific application.

©2007 Clevaflex Printed in USA  
Form Exhaust Sleeves 03-07