

Technical Overview

Alumina Fiber Sleeve

High-temperature thermal protection sleeve designed for extreme industrial heat exposure where conventional insulation materials are insufficient.

Material	High-purity alumina fiber
Form	Braided / woven tubular sleeve
Function	Thermal insulation and heat protection
Key properties	Non-combustible, low thermal conductivity
Typical use	Furnace, metallurgy, high-temperature processing

Product purpose

Alumina Fiber Sleeve is used to protect hoses, cables, wires, and components exposed to sustained extreme temperatures. Alumina fibers provide excellent thermal stability and resistance to thermal shock.

Typical applications

- Furnace and kiln equipment protection
- High-temperature hose and tubing insulation
- Thermocouple and sensor wire protection
- Metallurgical, glass, and heat treatment environments

Thermal performance

The sleeve maintains insulation performance and dimensional stability under prolonged high-temperature exposure. Selection should consider temperature level, exposure duration, and surrounding atmosphere.

Handling and installation

The flexible sleeve can be cut to length and installed over straight or curved components. Secure ends mechanically where vibration or movement may cause migration.

Limitations

Not designed for pressure containment or structural reinforcement. Additional protection may be required for heavy abrasion or molten splash. Verify compatibility when exposed to aggressive chemicals or severe mechanical impact.

RFQ information

For accurate quotation and lead time, please provide operating temperature (continuous/peak), sleeve inner diameter, length per piece, application environment (abrasion/molten splash/chemicals), and required quantity.

Reference product page

https://www.pkfiresleeve.com/alumina-fiber-sleeve_p256.html

Engineering disclaimer

Performance depends on application conditions, atmosphere, installation quality, and exposure severity.