
TECHNICAL DATA SHEET: High-Temperature Ceramic Fiber Rope

Product Series: AdTech-CFR Series

Material Type: Aluminosilicate Refractory Fiber

Classification Temperature: 1260°C (2300°F)

Manufacturer: AdTech Metallurgical Materials Co., Ltd.

Website: <https://www.c-adtech.com>

1. Product Description

AdTech **Ceramic Fiber Paper** is a lightweight, flexible refractory material processed from high-purity alumina-silica fibers into a highly uniform, flexible sheet. Through a specialized wet-forming process with a low-content organic binder, our paper provides excellent thermal insulation, chemical resistance, and ease of handling.

It is designed for applications where space is limited and high-temperature sealing or gasketing is critical for operational efficiency and thermal protection.



2. Technical Specifications

Physical & Chemical Properties	Standard Value
Classification Temperature	1260°C (Standard) / 1430°C (High-Zirconia)
Continuous Working Temperature	1050°C
Bulk Density	200 - 250 kg/m³
Chemical Composition	Al ₂ O ₃ : 45-47%
Tensile Strength	≥ 0.5 MPa
Linear Shrinkage (1100°C, 24h)	≤ 3.5%
Thickness Options	0.5mm, 1mm, 2mm, 3mm, 5mm, 6mm, 10mm
Loss on Ignition (LOI)	≤ 10%

3. Key Features & Advantages

Superior Flexibility: Can be easily wrapped, folded, or cut into intricate shapes for custom gaskets.

Low Thermal Conductivity: Provides high-efficiency insulation in a very thin profile.

High Dielectric Strength: Excellent electrical insulation properties at elevated temperatures.

Smooth Surface Finish: Ensures uniform contact and a tight seal in expansion joints and gaskets.

Excellent Chemical Stability: Resists most corrosive agents, including molten aluminum and common industrial acids.

Thermal Shock Resistance: Maintains structural integrity during rapid heating and cooling cycles.

4. Typical Applications

Industrial Gaskets: High-temperature seals for furnace doors, heat exchangers, and gas ducts.

Aluminum Foundries: Expansion joint seals for launders, refractory lining backup, and parting agents for molds.

Appliance Insulation: Thermal barriers for ovens, heaters, and commercial kitchen equipment.

Automotive: Heat shields for exhaust systems and silencer insulation.

Aerospace & Petrochemical: Fire protection, pipe wrap, and radiant section seals.

Electrical: High-temperature electrical gaskets and wire/cable insulation.

5. Handling & Processing Guide

Processing Tips:

Cutting: AdTech Ceramic Fiber Paper can be easily die-cut or hand-cut using standard knives or shears. For precision industrial gaskets, CNC water-jet cutting is recommended.

Bonding: Can be adhered to various substrates using high-temperature inorganic cements or spray adhesives.

The "Burn-out" Process: Our paper contains a small percentage of organic binder for flexibility. During the initial heating cycle, a slight odor and smoke may occur as the binder burns off. This will cease once the temperature exceeds 200°C.

Safety Precautions:

Protection: Wear a dust mask, gloves, and safety goggles when cutting or installing.

Cleanup: Use a vacuum with a HEPA filter or wet-cleaning methods to manage dust; avoid compressed air for cleaning.

6. Packaging & Storage

Packaging: Supplied in rolls, standard widths are 610mm and 1220mm. Custom widths are available upon request.

Storage: Store in a dry, ventilated area. Keep the rolls in their original packaging until use to prevent physical damage and moisture absorption.

7. Quality Commitment

AdTech implements rigorous quality control for every roll of Ceramic Fiber Paper. We test for thickness uniformity, tensile strength, and high-temperature shrinkage to ensure our products meet the demanding needs of global industrial leaders.

Contact Us for a Custom Quote

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