Harmony
FIRE SAFETY, ENERGY SAVING

Refractory Fibrous Cotton

Product Data Sheet

Product Description

Refractory Fibrous Cotton (also known as Ceramic Fibrous Cotton / Insulating Fibrous Cotton) is a loose, fluffy inorganic refractory and thermal insulation material. It is produced by melting high-purity raw materials， Unlike dense fibrous blankets or boards, it exists in a loose cotton-like form without further forming processes (e.g., needling or pressing), retaining maximum porosity and flexibility.

According to the different raw materials, fibrous cotton can be divided into the following categories:

- Alumina-Silica Type (Most Common)
- Alkaline-Earth Silicate Type (Low bio-persistence)
- High-Alumina Type (Extreme High-Temperature Application)

As a foundational product in the refractory Fibrous family, it is widely used as a raw material for secondary processing or direct filling insulation in industrial high-temperature scenarios.

Features

- Exceptional High-Temperature Resistance;
- Low thermal conductivity;
- Excellent thermal shock resistance;
- Excellent chemical stability;
- Not easy to pulverize at high temperatures;
- Good elasticity retained at high temperatures;
- No binders or other corrosive substances;
- Excellent sound absorption performance.

Typical Applications

- Raw material for secondary products such as boards, papers, and special-shaped parts;
- Heat insulation filling material for corners and complex spaces;
- Filling material for expansion joints;
- Filling material for short-term heat insulation repairs;
- Fibrous reinforcement material for heat-insulating concrete and binders;
- Precursor of engineering fibrous materials;
- Production of various ceramic fibrous textiles.
- And so on .....

Main Performance

		Standard Cotton	High purity Module	Synthetic High-purity Module	High-alumina Cotton	Zirconium-containing Module	Synthetic Zirconium-alumina Cotton	Zirconium-containing Cotton
Classification Temperature (℃)		1260	1260	1260	1400	1400	1400	1430
Chemical Composition								
Al_2O_3	%	43	45	45	52-55	40	40	35
ZrO_2	%	-	-	-	-	5-7	5-7	>15
Al_2O_3+SiO_2	%	≥98.0	≥98.0	≥99.1	≥98.0	-	-	-
Al_2O_3+SiO_2+ ZrO_2 (Cr_2O_3)	%	-	-	-	-	≥98.0	≥99.1	≥99.1

Note: The above data are representative averages measured according to general test methods and may vary with normal production fluctuations. These data are provided as a technical service and may be adjusted occasionally.