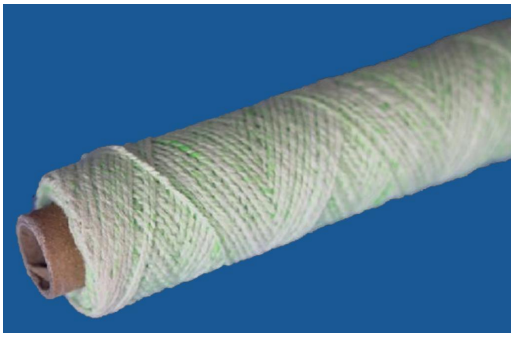
CCEWOOL® Bio Soluble Fiber Yarn



Classification Temperature: 1200°C (2192°F)
Chemical Composition: Silicon, Calcium, Magnesium (AES)
CCEWOOL® Bio Soluble Fiber Yarn is a reinforced fiber product developed for high-temperature textile applications. It is made primarily from our own high-quality alkaline earth silicate (AES) bio-soluble fiber and reinforced with continuous fiberglass filament or stainless steel wire. This composite reinforcement structure significantly improves tensile strength, abrasion resistance, and dimensional stability, helping the yarn meet demanding weaving and long-term service requirements.
Compared with conventional refractory ceramic fiber yarn, CCEWOOL® Bio Soluble Fiber Yarn maintains reliable high-temperature performance while offering improved handling safety and lower biopersistence. Its good flexibility, high strength, and processing adaptability make it suitable for manufacturing a wide range of high-temperature textiles and for sealing, insulation, protection, and industrial textile applications.

Characteristics:

High heat resistance;
Low biopersistence / bio-solubility;
Low thermal conductivity;
Excellent thermal stability and thermal shock resistance;
High tensile strength;
Good flexibility for various textile processes;
Stable quality and consistent performance;
Good chemical corrosion resistance;
Asbestos-free;
Good sound insulation;
Easy to cut, process, and install.

Applications:

Manufacturing of high-temperature textiles, including cloth, tape, and rope;

Zibo Double Egret Thermal Insulation Co.,Ltd
Add: No.105 Liuquan Road, Zibo, Shandong, China
Tel: +86-533-7986860
Email: ceramicfibres@ccewool.com
Website: www.ceramicfibres.com
www.ceceramicfiber.com
www.ccewool.com

Thermal insulation for industrial equipment;

Gasket and seal production;

Fire-resistant textiles;

Welding protection and thermal insulation;

High-temperature filtration media;

Furnace door seals and expansion joint fillers;

Sealing layers for furnace burner openings, high-temperature pipelines, and valves;

High-temperature flexible connections;

High-temperature thermal barriers;

Fire and thermal protection wrapping for automotive and new-energy equipment;

Heat-resistant textiles for fire doors and building protection systems.

TDS

CCEWOOL® Bio Soluble Fiber Yarn		
Reinforcement	Glass Fiber	Stainless Steel
Continuous Temperature Use Limit (°C)	650	1000
Color	Light Bluish	
Density (kg/m³)	-	
Organic Content (%)	≤18	

CCEWOOL® Bio Soluble Fiber Cloth

Classification Temperature: 1200°C (2192°F)

Chemical Composition: Silicon, Calcium, Magnesium (AES)

CCEWOOL® Bio Soluble Fiber Cloth is woven from our own alkaline earth silicate (AES) fibers and is a new-generation high-temperature textile combining reliable thermal insulation performance with improved occupational safety. The product offers low thermal conductivity and excellent insulation performance, helping reduce heat transfer, surface temperature, and heat loss under high-temperature conditions while improving overall system energy efficiency and the working environment.

Compared with conventional RCF (Refractory Ceramic Fiber) textiles, CCEWOOL® AES Fiber Cloth provides similar high-temperature performance while offering lower biopersistence and improved handling safety.

CCEWOOL® Bio Soluble Fiber Cloth also provides good flexibility and conformability, allowing it to closely fit curved, irregular, or confined structures without easily cracking or lifting at the edges. It is widely used in high-temperature gaskets and seals, welding protection, furnace and pipeline insulation, automotive and aerospace thermal protection, exhaust and flue systems, and fire-resistant thermal barriers.

Characteristics:

High mechanical strength;
Excellent chemical stability;
Low thermal conductivity;
Excellent thermal shock resistance and thermal stability;
Excellent tensile strength;
Good sound insulation;
Easy to process and highly adaptable;
Good chemical corrosion resistance.

Applications:

Furnace door seals, furnace wall linings, and removable insulation curtains;
High-temperature gaskets and seals;
Welding curtains and protective fabrics;
Thermal insulation wrapping for furnaces and high-temperature equipment;
Casting mold wrapping and thermal insulation covers;
External thermal protection for high-temperature pipelines, burners, valves, and exhaust systems;
Flexible insulation layers for industrial equipment;
Fire door cores and fire curtain fabrics;
Fire and thermal insulation wrapping systems for battery packs and energy storage enclosures;
Thermal insulation and protection for automotive and aerospace components.

TDS

CCEWOOL® Bio Soluble Fiber Cloth

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Email: ceramicfibres@ccewool.com
Website: www.ceramicfibres.com
www.ceceramicfiber.com
www.ccewool.com

Description	Cloth	
Reinforcement	Glass Fiber	Stainless Steel
Continuous Temperature Use Limit (°C)	650	1000
Color	Light Bluish	
Density (kg/m³)	500	
Organic Content (%)	≤18	

CCEWOOL® Bio Soluble Fiber Tape

Classification Temperature: 1200°C (2192°F)
Chemical Composition: Silicon, Calcium, Magnesium (AES)
CCEWOOL® Bio Soluble Fiber Tape is a high-performance high-temperature sealing and insulation product woven from our own alkaline earth silicate (AES) fibers. Its main components are SiO_2 , MgO, and CaO, providing stable high-temperature performance together with lower biopersistence and improved occupational safety, making it suitable for industrial applications with higher safety and environmental requirements.

CCEWOOL® Bio Soluble Fiber Tape can be reinforced with fiberglass or stainless steel wire to improve tensile strength, tear resistance, abrasion resistance, and vibration resistance at elevated temperatures. This helps the tape maintain reliable performance under frequent start-stop cycles, thermal cycling, and mechanical stress.

The product is suitable for continuous high-temperature service above 1000°C and can be used for furnace door sealing, expansion joint filling, high-temperature pipeline and equipment connection sealing, and thermal barrier applications. Its flexible structure conforms well to complex surfaces and maintains stable sealing and insulation performance under thermal expansion and vibration.

Characteristics:

High mechanical strength;

Excellent chemical stability;

Low thermal conductivity;

Excellent thermal shock resistance and thermal stability;
Excellent tensile strength;
Easy to process and highly adaptable;
Good chemical corrosion resistance.

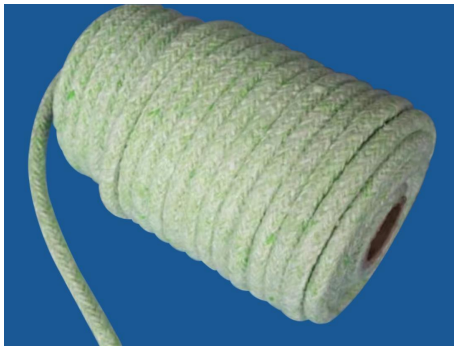
Applications:

Industrial furnaces and heat-treatment equipment: furnace doors, flanges, and access opening seals;
Petrochemical industry: sealing for furnace burners, pipeline connections, and valves;
Aluminum and non-ferrous metals: casting mold wrapping and high-temperature operation protection;
Power generation and new energy: fire and thermal insulation for battery systems and sealing of energy storage enclosures;
Building fire-protection systems: fire doors, fire-resistant expansion joints, and edge sealing for fire curtains.

TDS

CCEWOOL® Bio Soluble Fiber Tape		
Description	Tape	
Reinforcement	Glass Fiber	Stainless Steel
Continuous Temperature Use Limit (°C)	650	1000
Color	Light Bluish	
Density (kg/m³)	550-600	
Organic Content (%)	≤18	

CCEWOOL® Bio Soluble Fiber Rope



Classification Temperature: 1200°C (2192°F)
Chemical Composition: Silicon, Calcium, Magnesium (AES)
CCEWOOL® Bio Soluble Fiber Rope is a high-temperature sealing and insulation product made from our own alkaline earth silicate (AES) fibers. It is designed for sealing, cushioning, and thermal protection under long-term high-temperature service. The product is available in Twisted Rope, Round Rope, and Square Rope to suit different

sealing grooves, gaps, and installation conditions.

Each rope can be internally reinforced with fiberglass or stainless steel wire, helping maintain good tensile strength and structural integrity under high temperatures, vibration, and mechanical compression while reducing the risk of breakage or loosening during service.

CCEWOOL® Bio Soluble Fiber Rope combines high-temperature resistance, mechanical stability, and improved handling safety. Its flexible and compressible structure allows it to form a continuous sealing and insulation layer around furnace doors, access openings, pipeline connections, burner areas, and hot-air systems, helping reduce heat loss, air infiltration, and structural wear.

Characteristics:

Low thermal conductivity;

Excellent thermal shock resistance and thermal stability;

Excellent tensile strength;

Easy to cut and install;

Excellent flexibility;

Good chemical corrosion resistance;

Easy installation;

Excellent durability.

Applications:

Furnace door sealing and expansion joint filling;

High-temperature gaskets and packing;

High-temperature sealing for furnace burners, pipelines, and valves;

Boiler and oven insulation;

Exhaust system seals;

Industrial oven and furnace maintenance;

Fire-resistant sealing for energy storage equipment and battery enclosures;

Edge sealing for fire doors, fire curtains, and fire walls.

TDS

CCEWOOL® Bio Soluble Fiber Rope

Description	Round Braided Rope		Square Braided Rope		Twisted Rope		Woolen Rope
Reinforcement	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	Glass Fiber
Continuous Temperature Use Limit (°C)	650	1000	650	1000	650	1000	650
Color	Light Bluish		Light Bluish		Light Bluish		Light Bluish
Density (kg/m³)	550-600		550-600		550-600		550-600
Organic Content (%)	≤18		≤18		≤18		≤18

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