CCEWOOL® Low Biopersistent Fiber Bulk



97/69/EC).

Characteristics:

Excellent thermal shock resistance;

Excellent thermal insulating performance;

Low thermal conductivity;

Low heat storage;

Low bio-persistence.

Application:

Raw material for finished soluble fiber products;

Insulating fill for complex spaces and difficult access;

Packing expansion Joints;

Tube seal packing;

Fire door infill.

TDS

| CCEWOOL® Low Biopersistent Fiber Bulk | | | |
|---------------------------------------|---------------|--------------|--|
| Classification Temperature (°C)(°F) | 1200℃(2192°F) | 1300℃(2372℉) | |
| Chemical Composition (%) | | | |
| SiO2 | 65-68 | ≥70 | |
| CaO | 27-33 | - | |
| MgO | 2-7 | - | |
| CaO+MgO | - | ≥20 | |
| Color | Light Bluish | Light Bluish | |
| Shot Content(%) | ≤12 | ≤12 | |

Temperature degree: 1200° C (2192° F), 1300° C(2372° F)

CCEWOOL® Low Biopersistent Fiber Bulk consisits of calcium, magnesium, silicate. The fibers can be degraded in the human body to meet the requirements of health and environmental protection. CCEWOOL® Low Biopersistent Fiber Bulk serves as the foundation for soluble fiber products such as blanket, board. paper and other vacuum-formed products. It can meet European regulatory requirements (Directive



| Fiber Diameter(µm) | 3-5 | 3-5 |
|--------------------|-----|-----|
|--------------------|-----|-----|

CCEWOOL® Low Biopersistent Chopped Fiber



Temperature Grades: $1200^{\circ}\mathbb{C}$ (2192°F), $1300^{\circ}\mathbb{C}$ (2372°F)

CCEWOOL® Low Biopersistent Chopped Fiber is made by crushing CCEWOOL Low Biopersistent fiber bulk through professional automatic crusher. Chopped fiber bulk is raw material for producing Low Biopersistent fiber board and Low Biopersistent fiber paper. With automated

operation system, we can produce more uniform chopped fiber and the particle size of chopped fiber can be more accurate. We can make chopped soluble fiber of different particle sizes according to customers' requirements.

CCEWOOL® Low Biopersistent Chopped Fiber is widely used as thermal insulation materials in industrial kilns, boilers, pipes, chimneys, etc, and its thermal insulation effect is remarkable.

Characteristics:

Low heat capacity and low thermal conductivity;

Excellent chemical stability;

Excellent thermal stability, resistance to pulverization at high temperature;

With no binders or corrosive substances;

Excellent sound absorption.

Applications:

Raw material for fiber blanket, board, textile and unshaped vacuum formed products;

Expansion joints;

Furnace base seals;

Tube seals;

Burner tile packing;

Chimney insulation.

TDS

| CCEWOOL® Low Biopersistent Chopped Fiber | | | | |
|--|---------------|--------------|--|--|
| Classification Temperature (℃)(℉) | 1200℃(2192°F) | 1300℃(2372℉) | | |

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| Chemical Composition (%) | | |
|--------------------------|--------------|--------------|
| SiO2 | 65-68 | ≥70 |
| CaO | 27-33 | - |
| MgO | 2-7 | - |
| CaO+MgO | - | ≥20 |
| Color | Light Bluish | Light Bluish |
| Shot Content(%) | ≤12 | ≤12 |
| Fiber Diameter(µm) | 3-5 | 3-5 |

CCEWOOL® Ceramic Bulk Fiber



Temperature Grades: 1100° C (2012°F), 1260° C (2300°F), 1400° C (2550°F), 1430° C (2600)

CCEWOOL® Ceramic Bulk Fiber is produced by melting high-purity raw materials such as clay grog, aluminum oxide powder, silica powder, and zircon sand in an industrial electric furnace at high temperatures to form a fluid. Then, it is transformed into fiber-like structures through processes like compressed air blowing or spinning with a centrifuge, and collected to create ceramic fiber cotton.

CCEWOOL® Ceramic Bulk Fiber can resist most types of chemical corrosion. They are lightweight, durable, have low heat storage

capacity, effectively save energy, and exhibit excellent resistance to thermal shocks, making them suitable for use in harsh environments. CCEWOOL® Ceramic Bulk Fiber serves as a raw material for the production of refractory ceramic fiber blankets, boards, papers, and can also be directly used in various high-temperature applications such as high-temperature insulation and packaging materials.

Characteristics:

Low heat capacity and low thermal conductivity;

Excellent chemical stability:

Excellent thermal stability, resistance to pulverization at high temperature;

With no binders or corrosive substances;

Excellent thermal shock resistance:

Lightweight.





Applications:

Raw material for fiber blanket, board, textile and unshaped vacuum formed products;

Fillings for wall lining gap in high temperature furnace, heating device;

Fiber spraying;

Raw material for coatings;

Insulation fillings for corner and complex space.

TDS

| CCEWOOL® Ceramic Bulk Fiber | | | | | |
|-----------------------------|-------|---------------------|----------|-------|---------|
| Description | 1100 | 1260S | 1260 HPS | 1400 | 1430 HZ |
| Fiber Diameter(µm) | | 3.0-5.0 | | | |
| Chemical Composition(%) | | | | | |
| Al2O3 | ≥43 | ≥44 | ≥44 | ≥52 | ≥35 |
| SiO2 | ≥52 | ≥52 | ≥55 | ≥47 | ≥49 |
| ZrO2 | - | ≥15 | | | |
| Color | White | White | White | White | White |
| Shot Content(%) | ≤15 | ≤15 | ≤15 | ≤15 | ≤12 |
| Packing | | Braided Bag/ Carton | | | |

CCEWOOL® Ceramic Chopped Fiber



Temperature Grades: 1260 °C (2300 °F) CCEWOOL® Ceramic Chopped Fiber is made by crushing CCEWOOL refractory ceramic fiber bulk through professional automatic crusher. Chopped fiber bulk is raw material for producing refractory ceramic fiber board and refractory ceramic fiber paper. With automated operation system, we can produce more uniform chopped fiber and the particle size of chopped fiber can be more accurate. We

can make chopped refractory ceramic fiber of different particle sizes according to customers' requirements. CCEWOOL® Ceramic Chopped Fiber is widely used as thermal insulation materials in industrial kilns, boilers, pipes, chimneys, etc, and its thermal insulation effect is remarkable.

Characteristics:

Low heat capacity and low thermal conductivity;





Excellent chemical stability;

Excellent thermal stability, resistance to pulverization at high temperature;

With no binders or corrosive substances;

Excellent sound absorption.

Applications:

Raw material for fiber blanket, board, textile and unshaped vacuum formed products;

Expansion joints;

Furnace base seals;

Tube seals;

Burner tile packing;

Chimney insulation.

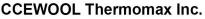
TDS

| CCEWOOL® Ceramic Chopped Fiber | | |
|--------------------------------|--|--|
| Classification Temperature (℃) | 1260 | |
| Fiber Diameter(µm) | 2-4 | |
| Chemical Composition(%) | | |
| Al2O3 | ≥43 | |
| SiO2 | ≥54 | |
| ZrO2 | - | |
| Color | White | |
| Shot Content(%) | ≤12 | |
| Packing | Braided Bag/ Vacuumed plastic bag+pallet | |

CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes



Temperature Grades: 1260°C (2300°F), 1430°C (2600°F) CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes is produced with high-purity clay clinker, alumina powder, silica powder, and zircon sand and other premium raw materials, through innovative production process. The raw materials are melted at high temperatures in an industrial electric furnace, then processed into fiber through compressed air blowing technology. Then the fiber is collected by a wool collector, and forms high-quality refractory ceramic fiber blown bulk.





This specialized fiber bulk has a fiber diameter of 2-4µm. It's unlubricated, making it the best product for manufacturing vacuum formed shapes. We also produce bio soluble fiber(AES fiber) for vacuum formed shape, to meet different application requirements.

CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes is packed with vacuumed plastic bags and then packed securely on pallets. This packaging method not only protects product from damage but also greatly saves space.

Reach Registration Certificate will be provided as requested for each shipment.

Characteristics

Unlubricated;

Low heat capacity and low thermal conductivity;

Excellent chemical stability;

Superior thermal stability, resistant to powdering at high temperatures.

Application:

The best product for making vacuumed formed shapes.

TDS

| CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes | | | ormed shapes |
|--|--|------------------|---------------|
| Classification Temperature | | 1260℃ (2300℉) | 1430℃(2600°F) |
| Color | | White | White |
| Fiber Diameter (µm) | | 2-4 | 2-4 |
| Shot Content (%) ≤15 | | ≤15 | ≤12 |
| | Al ₂ O ₃ | ≥43 | ≥35 |
| Chemical Composition | SiO ₂ | ≥54 | ≥49 |
| (%) | ZrO ₂ | - | ≥15 |
| | Al ₂ O ₃ +SiO ₂ +ZrO ₂ | - | ≥99 |
| Packing Vacuumed plastic bag+pallet. | | stic bag+pallet. | |

CCEWOOL® Ceramic Fiber Bulk for Textile



Temperature degree: 1260°C(2300°F)

CCEWOOL® Ceramic Fiber Bulk for Textile is made from standard refractory ceramic fiber bulk through a further shot-removal process to deliver uniform diameter and high spinnability of fiber cotton, which is one of ideal raw material for the production of textiles.





Characteristics:

Low heat capacity and low thermal conductivity;

Excellent chemical stability;

Excellent thermal stability, resistance to pulverization at high temperature;

With no binders or corrosive substances;

Excellent sound absorption.

Application:

Raw material of refractory ceramic fiber textile(yarn, cloth, tape, rope)

TDS

| 120 | | |
|---|---------------------|--|
| CCEWOOL® Ceramic Fiber Bulk for Textile | | |
| Classification Temperature (℃) | 1260 | |
| Fiber Diameter(µm) | 3-5 | |
| Chemical Composition(%) | | |
| Al2O3 | ≥43 | |
| SiO2 | ≥54 | |
| ZrO2 | - | |
| Color | White | |
| Shot Content(%) | ≤15 | |
| Packing | Braided Bag/ Carton | |

CCEWOOL® Ceramic Fiber Friction Bulk



Temperature degree: 1260 ℃ (2300 ℉)
CCEWOOL® Ceramic Fiber Friction Bulk is a combination of refractory ceramic fibers and binding agents, which are designed to improve its characteristics. This type of friction material is manufactured by blending refractory ceramic fibers with organic and inorganic binders. The production process involves mixing, molding, forming, curing, and sintering.

The final result is a material that is capable of withstanding extremely high temperatures and pressure without losing its functionality. It is

used extensively in brake systems, clutches, and other friction applications due to its excellent frictional performance, wear resistance, and low dust emissions.





Characteristics:

- 1. High heat resistance: Refractory ceramic fiber friction materials can withstand temperatures up to 1200 ℃, making it an ideal material for use in high-temperature applications.
- 2. Low wear rates: This material has excellent wear resistance, which makes it highly suitable for use in applications that require long-lasting and durable materials.
- 3. Low noise: Refractory ceramic fiber friction material is virtually silent during operation, making it an ideal choice for reducing noise and vibration levels.
- 4. Low dust emissions: These materials are designed to generate low levels of dust during operation, reducing exposure to harmful particles.
- 5. High chemical resistance: Refractory ceramic fiber friction material is highly resistant to chemical corrosion, ensuring that it can work effectively in harsh environments.

Application:

- 1. Automotive brakes: Refractory ceramic fiber friction material is widely used in automotive brake systems due to its excellent performance and durability. It offers smoother operation, lower noise levels, and reduced wear and tear compared to other friction materials.
- 2. Industrial clutches: These materials are highly preferred in industrial clutch applications due to their high resistance to heat and wear. They offer excellent frictional performance, reducing slippage during high-demand operations.
- 3. Construction machinery: Refractory ceramic fiber friction material is widely used in construction machinery such as cranes and excavators because they can withstand high loads and stresses.

TDS

| CCEWOOL® Ceramic Fiber Friction Bulk | | |
|--------------------------------------|------------------------|--|
| Classification Temperature (℃) | 1260 | |
| Operation Temp(℃) | ≥1000 | |
| Fiber Diameter(µm) | 2-4 | |
| Chemical Composition(%) | | |
| Al2O3 | ≥45 | |
| SiO2+Al2O3 | ≥97 | |
| ZrO2 | - | |
| Color | white or grayish-white | |
| Shot Content(%) | ≤3 | |
| Packing | Braided Bag | |

CCEWOOL® Polycrystalline Wool Fiber Bulk



Temperature Grade: 1600 ℃ (2912 ℉)
CCEWOOL® Polycrystalline Wool Fiber
Bulk is the ideal choice for
high-temperature and chemically corrosive
applications.

CCEWOOL® Polycrystalline Wool Fiber Bulk is made from polycrystalline mullite fibers. It can withstand a continuous operating temperature of up to 1540°C (2800°F) with minimal shot content. This fiber exhibits excellent thermal stability and is suitable for high-temperature insulation applications. CCEWOOL® Polycrystalline

Wool Fiber Bulk serves as a raw material for the production of polycrystalline fiber blankets, boards, papers, and other products.

Characteristics:

Excellent thermal shock resistance
Excellent chemical stability
High-temperature stability
Low thermal conductivity
Low shot content

Application:

Raw material for finished alumina fiber products Insulating fill for various industrial furnaces High-temperature seals, gaskets and coatings Ladle cover infill Aerospace industry

TDS

| CCEWOOL® Polycrystalline Wool Fiber Bulk | | |
|--|--------|--|
| Classification Temperature (℃) | 1600 | |
| Continuous Temperature Use Limit (℃) | 1500 | |
| Chemical Composition(%) | | |
| Al2O3 | 71-73 | |
| Si02 | 27-29 | |
| Leachable Chlorides | Trace | |
| Color | Bluish | |



CCEWOOL Thermomax Inc.

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| Shot Content (%) | ≤1 |
|---------------------|------|
| Fiber Diameter (um) | 3-6 |
| Fiber Length (mm) | ≥100 |