



High Temperature Fibrous Ceramic Materials & Products

ZIRCAR Ceramics, Inc.
New York, USA

ZIRCAR Ceramics, Inc. is a New York, USA based manufacturer and international marketer of a wide range of engineered high temperature materials. With a 40 year history as a producer of some of the most advanced ceramic fiber-based thermal, electrical and structural insulation materials, the spectrum of markets served and the depth of our experience and expertise in our field is tremendous.

Product Forms Include:

Rigid Insulation Products:

Boards, Cylinders, Custom Formed Sizes and Shapes, Precision CNC Machining.

Flexible Insulation Products:

Papers, Blankets, Textiles in custom die-cut shapes, sheets, partial and full rolls.

Cements, Rigidizers & Moldable Products: Standard and Custom Bonding and Coating Cements, Mastics and Moldables.

Furnace Building Accessories:

Heating Element Holders and Electrical Straps, Hearth Plates, Ceramic Reinforcing Hardware.

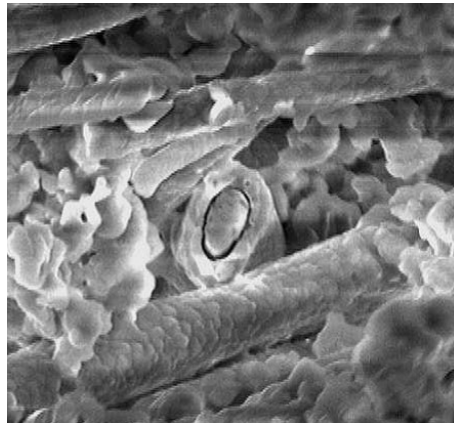
Furnace Insulation Assemblies:

Custom Engineered & Assembled ZIRCAR Ceramics Insulation Systems - makes furnace building easy!

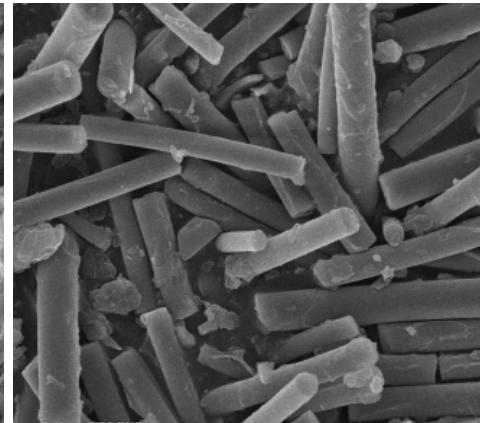
Heating Elements:

MoSi₂ & Resistance Wire, Custom Fiber Insulated Heaters.

Thermal stability and refractoriness are possible with a properly engineered and applied combination of fiber and binder. This is the foundation of ZIRCAR Ceramics, Inc.



Fiber, refractory binders and ceramic fillers sintered at high temperatures become strong and very stable thermal insulators.



High Porosity, low-binder systems are suitable for applications such as filters, firing setters and composite reinforcement.

Markets Served:

Furnaces: Rapid Cycle with Temperatures to 1825°C.

Aerospace: Radome and Nozzle Insulation.

Glass & Ceramics: Thermal Treatment and Sintering.

Crystals: Growing and Annealing Furnaces.

Scientific Analytical Devices: Insulation and Heaters.

R&D: Corporate, Government and Academic Material Science Research.

Alternative Energies: Fuel Cells and Solar.

Many More!

Thank You So Much!

Everyone at ZIRCAR Ceramics thanks you, our customers, for your business. We also thank Mr. Bernie Hamling, founder (1974) of ZIRCAR Products, Inc., for giving us the opportunity to grow our third generation company and to serve so many satisfied customers.



Mr. Bernie Hamling

e-mail: sales@zircarceramics.com www.zircarceramics.com



High Temperature Fibrous Ceramic Materials Thermal, Structural & Electrical Insulation

Rigid Products

ZIRCAR Ceramics offers an extensive range of cost effective high performance rigid insulation products - many that outperform all others - hands down!

Al_2O_3 products with legendary heritage of high performance include: **SALI**, **SALI-2**, **ZAL-45**, **AL-25/1700** - optimum densities and low CTEs for low thermal conductivity, excellent hot strength and long life to 1825°C.

$Al_2O_3-SiO_2$ products include an extensive range of engineered combinations of high purity refractory ceramic fibers and inorganic refractory binders in many densities and sizes to temperatures to 1420°C.

$SiO_2-CaO-MgO$ "Soluble" fiber products give customer an extended range of products from which to choose - to 1200°C.



Multi-layer 1700C rapid cycle furnace insulation systems made of ZIRCAR Ceramics' Alumina Type **SALI** , Alumina Type **ZAL-15**, Alumina-Silica Type **ECO-1200B** provide clean, long lasting furnace environments - as required in applications involving the heat treatment and sintering of specialty glasses and advanced technical ceramics.



Type **ZAL-45** exhibits high strength, fine texture to 1600°C.



Type **Uniform-A1** made in 30" x 60" x 3" format to 1260°C.

Flexible Products

Polycrystalline Al_2O_3 fiber is used exclusively in ZIRCAR Ceramics' flexible Al_2O_3 paper and blanket products. Al_2O_3 , $Al_2O_3-SiO_2$ and SiO_2 textiles are also available.

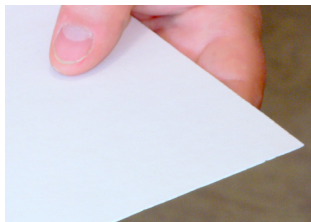
Al_2O_3 Paper Types **APA-1**, **APA-2** and **APA-3** are manufactured of shot free 1650°C fiber available in a variety of sheets and rolls.

Al_2O_3 Blanket Types **NMB** and **NAB** are uniquely strong mechanically needed blankets with useful properties to 1600°C.

Al_2O_3 Textile Type **AS-7M** retains 100% of its strength to 1200°C.



Al_2O_3 Paper Type **APA-1** and Al_2O_3 Blankets Types **NMB** and **NAB** are flexible insulation products offered in sheets, partial and full rolls.



Type **APA-3** - 0.012" thick rigidized sheets.



Type **AS-7M** super strong to 1200°C.



Type **NMB** Blanket Modules to 1600°C.



High Temperature Fibrous Ceramic Materials Thermal, Structural & Electrical Insulation

Cements, Rigidizers, Moldables

ZIRCAR Ceramics' wide range of Cements, Rigidizers and Moldable products enable customers to bond, coat and harden all varieties of ceramic fiber based products.

Al₂O₃ Rigidizer/Hardener Type **AL-R/H** and Al₂O₃ Cements **Type AL-CEM** and NEW Type **AL-CEMXT** are ultra high purity products, bringing utility to bonding, coating and hardening applications with temperatures to 1800°C.

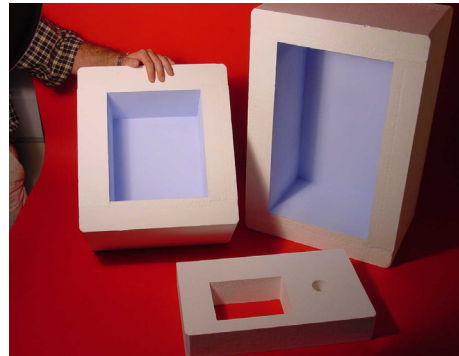
SiO₂ Rigidizer Type **SI-RIG** is an ammonia stabilized colloidal silica used to harden the surfaces of fibrous ceramic materials.

Al₂O₃-SiO₂ Cement Type **AS-CEM** works to significantly harden and reduce particulate generation to temperatures of 1260°C.

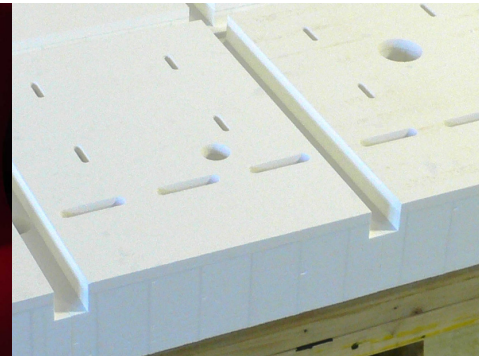
Al₂O₃-SiO₂ Moldable Type **AX-Moldable** forms a very strong bond when building fiber board structures.



An appropriate application of a coating cement or rigidizer, such as **AS-CEM** on **AXHTM** (shown above) will contribute to enhancing the strength, hardness and relative cleanliness of ceramic fiber products.



Uniform-A1 tundishes bonded with **AX-Moldable** Cement.



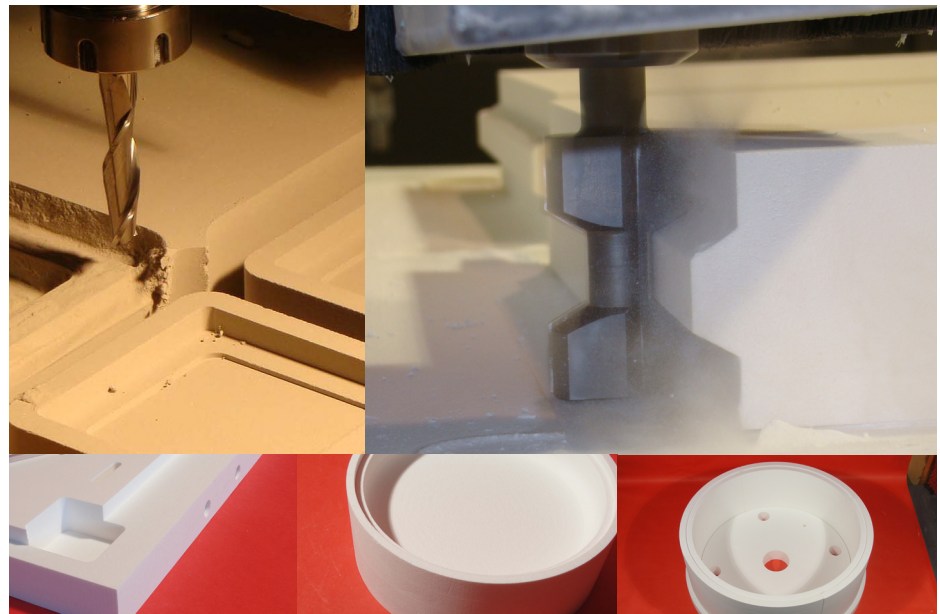
AL-25/1700 BIG BLOCKS laminated with **AL-CEMXT**.

Precision CNC Fabrication

Five CNC Milling Stations, a fully equipped finishing department working two shifts a day, 5 days a week - means thousands of precision cut parts for a very large number of satisfied customers.

In addition to machining our own products we are experienced in machining other materials including: **Calcium Silicate** Cement Boards, **Microporous** Silica Insulation and Refractory and Insulating **Bricks**.

Contact **ZIRCAR Ceramics** today for a quote on your next custom insulation requirements.



e-mail: sales@zircarceramics.com www.zircarceramics.com



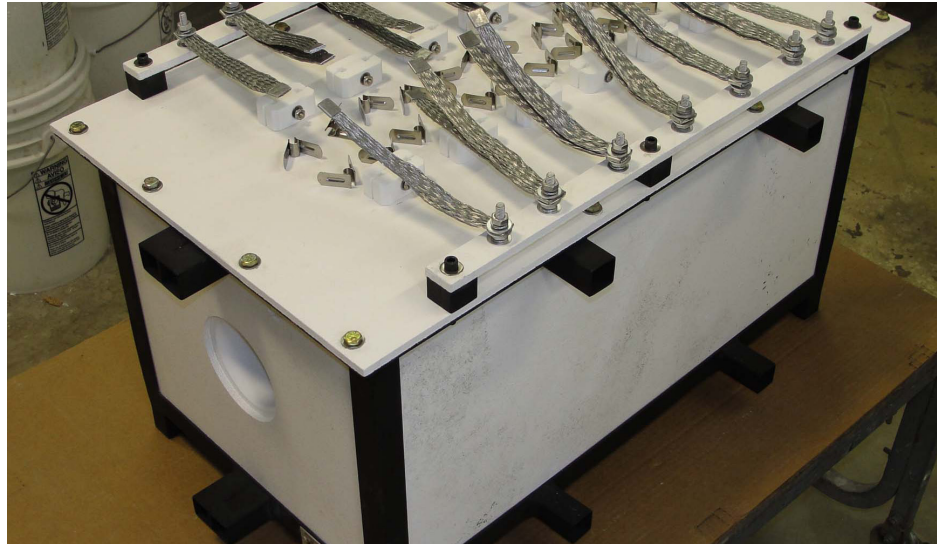
High Temperature Fibrous Ceramic Materials Thermal, Structural & Electrical Insulation

Engineered Insulation Assemblies

ZIRCAR Ceramics works very closely with OEM Furnace Builders and end user alike on the design and fabrication of complete preassembled insulation assemblies.



This vertical crystal growing furnace insulation assembly is constructed of a layered system of **SALI, ALC, ASH** - to 1700°C.



This assembly is used to grow Carbon Nanotubes at 1600°C.

Please visit our e-commerce enabled website to see our complete technical library and to purchase standard items online.
www.zircarceramics.com



ZIRCAR Ceramics' 64,000 sq ft of facilities include our corporate headquarters, 6 vacuum forming systems, R&D-Quality Labs and CNC machine shop in Florida, NY with 2 vacuum forming systems, board processing, die-cutting, shipping and receiving in Chester, NY - approximately 100 KM Northwest of New York.

Proudly Represented By:



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