Thermal Ceramics at a Glance

What differentiates us?

- Advanced material science and processing capabilities
- Our applications engineering experience
- A strong history of innovation and reinvention
- Consistent and reliable performance
- A truly global footprint
- We find and invest in the best people

The markets we serve

Petrochemical

Thermal Ceramics makes critical components for tough assignments in the global petrochemical industry.

Transportation

We make high-performance products to exacting standards for aerospace, automotive, marine and rail applications.

Energy

Thermal Ceramics develops products for power distribution and generation from renewable and traditional sources and insulation materials for heat management.

Fire Protection

We have developed passive fire protection products marketed as FireMaster®. Application solutions for marine, industrial, rail, road and tunnel, petrochemical and offshore.

Consumer Goods

Thermal Ceramics has developed a range of thermal insulation materials for domestic appliances, small boilers and water heaters all of which deliver exceptional performance and value.

Cement

We manufacture and install a wide range of insulation fibre and monolithic products and work with customers to develop the right solution to extend their kiln's life span or speed with advanced technology to reduce downtime.

Ceramics and Glass

As a major producer of high temperature insulating products, Thermal Ceramics understands the firing conditions of this industry and the lining requirements placed upon our materials.

Iron and Steel

Thermal Ceramics is uniquely positioned, technically and geographically, to offer a comprehensive range of advanced refractory engineered solutions for the complete iron and steel process.

Aluminum

We provide the aluminum production and processing industry with the widest selection of refractories and high temperature insulating materials on the market.

Product overview

Thermal Ceramics designs, manufactures and installs a broad range of thermal insulation products that significantly reduce energy consumption and emissions in a variety of high temperature processing applications.

Our product offering is extensive and covers application needs from industrial to commercial markets and is organized into the following categories, with available product forms, typical of the high temperature insulation industry.

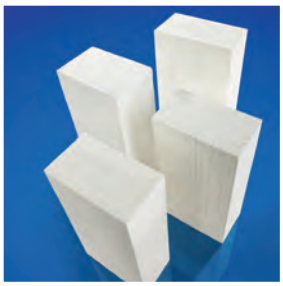
Material type	Product form
Fibre	
Refractory Ceramic Fibre (RCF) Low Biopersistent Fibres (LBP) Polycrystalline Fibre (PCW)	Bulk, Blanket, Module, Paper, Felt, Board, Shape, Textile, Mastic
Fired refractory	
Firebrick Insulating Firebrick (IFB)	Bricks, Shapes
Monolithics	Cast, Gun, Ram, Vibratory
Crucibles Fired shapes	Various chemistries
Structural block	Board, Shape
Microporous	
Microporous	Board, Block, Panel, Flexible

Fibres: Traditional Refractory Ceramic Fibre (RCF) manufactured by Thermal Ceramics is a highly versatile material that can be spun or blown. With a wide range of products, Thermal Ceramics can provide the engineered solution to meet your requirements.

Low biopersistent, Alkaline Earth Silicate (AES) and Potassium Alumino Silicate (PAS) fibres and Superwool fibres have all been uniquely engineered to offer advantages in high temperature insulation applications. Polycrystalline fibres (PCW) are produced by sol-gel technology from aqueous spinning solutions and is suitable for use at application temperatures >2372°F (1300°C) and in critical chemical and physical application conditions. These fibres are manufactured to QS 9000 / ISO 9001/ ISO 14001 certified processes.

Fired Refractory: Firebrick from Thermal Ceramics are available for temperature use up to 3250°F (1788°C) and marketed as SR-90 and SR-99. The Insulating Firebrick (IFB) are manufactured into K® brand with very low thermal conductivity and high hot load strengths. JM and TC have the ability to withstand chemical attack and high heat conditions. Both wet and dry mortars are available that are matched for use with our IFB and Firebricks. Fired Refractory Crucibles and Shapes are individually crafted as Cerox® and Valcor®. Crucibles and fired shapes hold up under harsh conditions. With various alumina-silica, high-alumina and alumina-silica-zirconia compositions, these materials offer excellent hot strengths and resistance to thermal shock and molten metals.

Monolithics are available in Insulating, Dense and Special Duty Monolithics. World recognized branding, the line of Kaocrete® and Firecrete® dense monolithic have been proven ideal for applications that require strong, easy to place and economical materials. Kaolite® insulating monolithics provide low thermal conductivity values, ease of installation and superior performance in petrochemical applications. The line of special duty monolithics such as Kao-Tuff®, Plascast/Plasgun™ and Kao-Tab® feature specifically enhanced properties such as resistance to corrosion, abrasion and reducing atmospheres.



Structural Block insulation is marketed under the TR™ product offering manufactured from vermiculite and diatomaceous silica. The product can be made into exact customer specifications as boards or shapes.

Microporous: Microporous insulation is available under the WDS® brand for industrial and consumer goods markets. The microporous insulation materials are specially formulated and designed for applications such as ladle liner back-up insulation for iron and steel and board back-up insulation in ethylene crackers. These lightweight, high compressive strength materials are the most thermally efficient insulation available.