

## Key Applications of Morgan Alphawool™



### Iron&Steel

- Forging furnaces
- High temperature furnaces
- Industrial equipment



### Petrochemical

- Process heaters
- Secondary reformer
- Transfer line



Applications in industries needing extreme temperature capabilities (Metal, Ceramic, Glass etc.)



Furnace Chamber



Shuttle Kiln



Annealing Furnace



Annealing Furnace

## One Stop Integrated thermal management

Morgan Thermal Ceramics offers end-to-end solutions—from consultation and custom design to manufacturing and pre-assembly. We deliver comprehensive end-to-end solutions — from engineering and product supply to installation and on-site supervision

Trusted partner for end-to-end insulation solutions

For all enquiries, please contact our specialist sales and marketing offices:

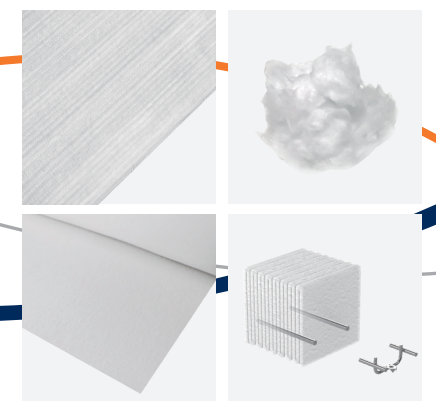
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Thermal Ceramics is a business of Morgan Advanced Materials

Extreme Temperature Insulation  
**Morgan Alphawool™**  
Up to 1600°C Application



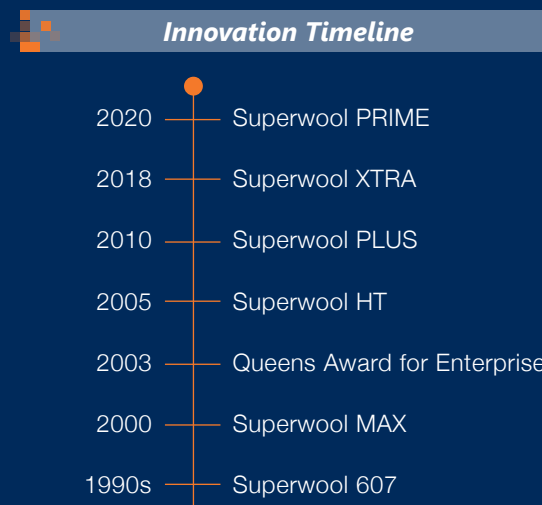
# Being innovative is what makes us different

Thermal Ceramics has been and continues to be at the forefront in high temperature insulation wool (HTIW) technology since the 1990's and has a strong portfolio of patents for our high temperature fibre development.

Over the last two decades, our journey of continued Research and Development has driven development of our alkaline earth silicate (AES) low bio-persistent fibres and grades, Superwool Plus and Superwool Prime.

By listening to our customers' needs, We continuously enhance our manufacturing methods manufacturing methods, raw materials, process control, in-service performance, energy saving insulation, amongst many more capabilities.

Thermal Ceramics high temperature insulation wool (HTIW) has now extended to include **Polycrystalline Wools (PCW)**, with classification temperature of 1600°C.

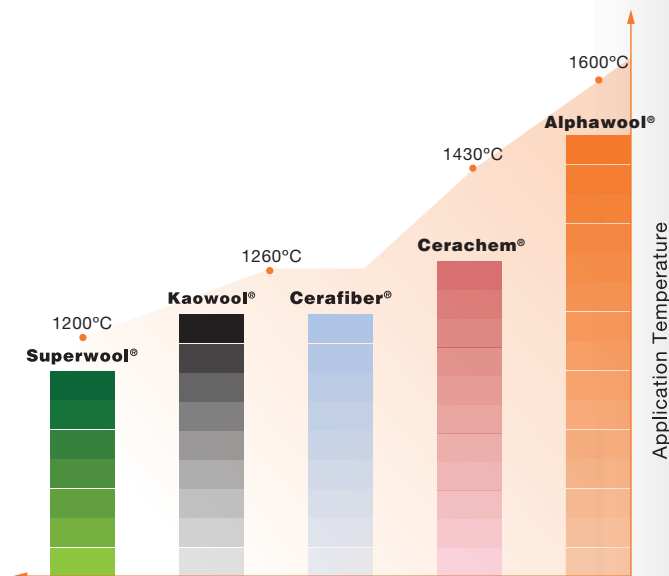
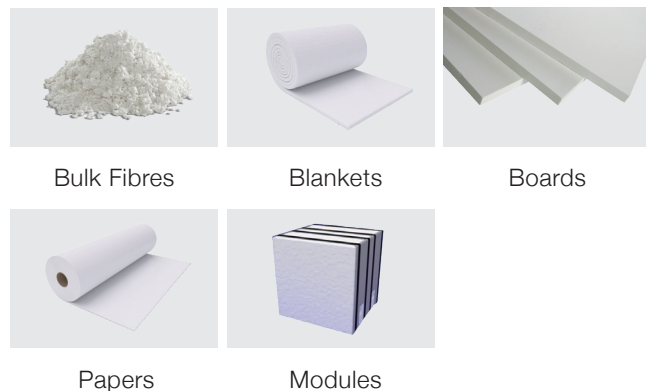


## Morgan Alphawool Built for Extreme Temperature Insulation

Alphawool™ fibre is a high-quality, high-performance crystalline alumina fibre with a maximum operating temperature of 1600°C. In addition to the conventional ceramic fibre characteristics of light weight, high insulation, and low heat storage, it also has excellent resistance to heat shrinkage and chemical corrosion at ultra-high temperatures.

### Fibre Products Forms

Our fibre product forms offering is extensive and is organized into the following categories, commonly used in high temperature insulation industry.

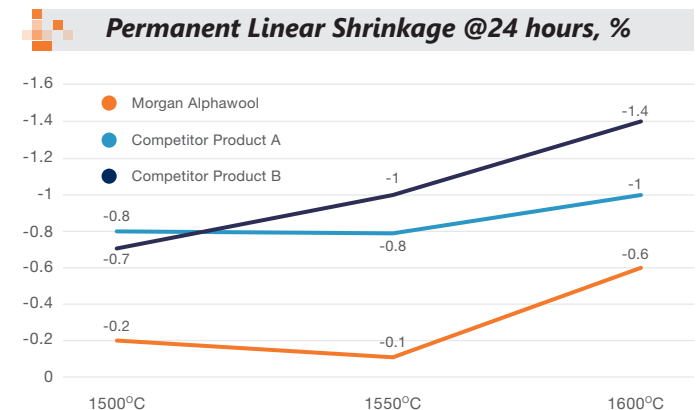


## Morgan Alphawool™ Blankets

Are needle-punched from high-purity alumina fibres, with a classification temperature up to 1600°C.

### Features

- High dimensional stability at 1600°C
- Excellent chemical resistance in oxidizing, neutral, and mildly reducing atmospheres
- Excellent compression resistance and resiliency
- Exempt from carcinogenicity classification under EU Directive 97/69/EC
- Not subject to RCF regulations
- Alternative to chromium-containing refractory ceramic fibers (RCF), with improved EHS credentials



Alphawool delivers strength in terms of its resistance to extreme high temperatures and pollutants, with improved EHS credentials.

## Alphawool Modules

Available in prefabricated modules, designed to meet the thermal insulation requirements of high temperature furnaces, with various anchors and other accessories to enable quick, convenient and efficient installation in most furnace linings.

### 1 Alphawool Combi-Modules



#### Features

- Combi Modules are convoluted blanket modules combining Alphawool blanket and refractory ceramic fibre/low bio-persistent blankets.
- Cost effective alternative to pure PCW modules.

### 2 Alphawool Pyro-Stacked™ Modules



#### Features

- Stack modules are cut Alphawool blanket segments stacked edge-grain.
- Classification temperature: up to 1600°C.