



REFRACTORIES

—— FOR ——

INDUSTRIAL APPLICATIONS



Global **Refractory** Solutions



ABOUT US

WHAT WE DO

In 1961 Allied Mineral Products began producing monolithic refractories for the foundry industry. Since then we have become a global force in the design and manufacture of monolithic refractories and precast refractory shapes for a wide range of metallurgical and industrial applications. We pride ourselves on providing leading products, custom engineering services and exceptional field support.

WORLDWIDE SALES & SERVICE FORCE

With Allied, you have a partner committed to **being there worldwide with refractory solutions**. Our technically trained sales and service teams ensure efficient and effective product recommendations and installation support. Additionally, our product services team provides troubleshooting and technical field service to our customers.



INNOVATION

We're a technology frontrunner in patented new product design and continuously work to improve our core product lines. We design comprehensive refractory systems to help customers optimize their equipment life and minimize down time. We are focused on developing and applying time saving practices for refractory installation.





THE ALLIED DIFFERENCE

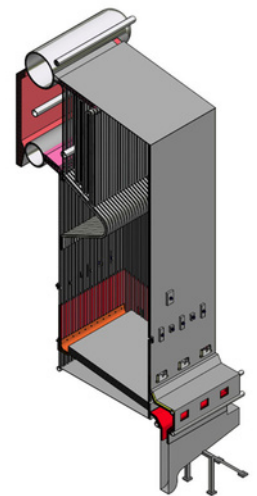
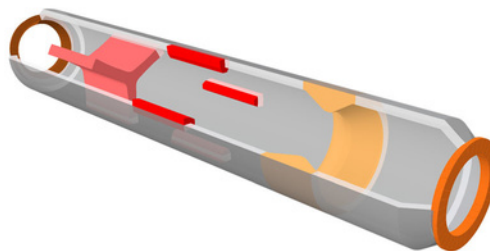
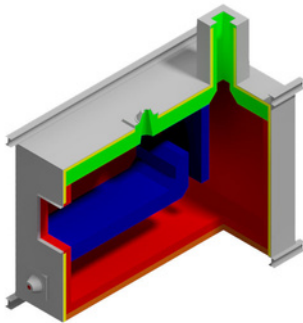
Allied Mineral Products is a long-time refractory solutions supplier to industrial markets. Our experience and approach leads to success in very challenging applications. Allied is known for our diverse range of high-quality, high-performance products, along with excellent technical support, engineering and customer service.

INDUSTRIES

- Cement and Lime
- Mining and Refining
- Petrochemicals
- Mineral Processing
- Power Generation
- Waste to Energy
- Hazardous Waste
- Agriculture
- Ferro Silicon
- Pulp and Paper
- Incineration

EQUIPMENT

- Boilers
- Rotary Kilns
- Incinerators
- Heat Exchangers
- Chemical Chambers
- Metal Refining Furnaces
- Secondary Combustors
- Crematoriums
- Reaction Vessels

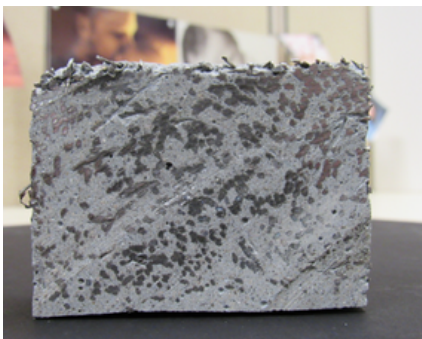


HIGHLIGHT OF INNOVATIVE PRODUCT TECHNOLOGIES / FAMILIES

Steel Fiber Enhancement—ARMORMAX® & METAL-ROK® are product families designed to contain and evenly distribute high concentrations of metallic fibers. The addition of metallic fibers increases thermal shock resistance and mechanical strength. These products come in a wide range of formulas.

Rapid Heat Up—REZIST ABRASE, FAST-DRY, FAST-TURN®, and FASTMAX® can be heated to operating temperatures at accelerated rates. These products provide options for reduced overall down time with minimal loss of physical properties.

No Cement Castables—QUICK-FIRE® & QUICK-FIRE® ONE (phosphate bonded), and **NANO-TEK®** (colloidal silica bonded product line). These products have excellent installation properties and can be installed as either a new lining or as a repair of an existing lining. Accelerated heat up features are included in this all-encompassing no cement product group.



METAL-ROK®



NANO-TEK® installation in a settling chamber.



QUICK-FIRE® 88 installed



PRODUCT TECHNOLOGY

<i>Product</i>	<i>Description</i>	<i>Cast</i>	<i>Pump</i>	<i>Shot-crete</i>	<i>Gun</i>	<i>Trowel/Ram</i>
Low Cement						
TUFFRETE®	Wide range of high-performance products with versatile installation features					
TUFF-FLO	Enhanced flow for intricate shapes and castings					
FAST-TURN®	Fast firing capabilities to reduce overall downtime					
CASTMAX®	High performance products for ambient to extreme temperature applications					
QUICK CAST®	Enhanced flow products requiring minimal vibration for installations					
FASTMAX®	Short cure rapid fire products for quick turnaround with minimal heat up control required					
DURACON®	Standard high strength vibration castables					
ARMORMAX®	Metal fiber containing products for mechanical abuse resistance					
FAST-DRY®	Fast firing performance gunning products					
REZIST ABRADE	High performance, special purpose gunning products					
GUNMAX®	Versatile, low-rebound gunning products					
METAL-ROK®	High performance, steel fiber reinforced ceramic shapes and castings					
Conventional Cement						
KAST TECH®	Broad range of general purpose refractory castables					
Ultra Low Cement						
ULTRACON	Specialized products for precast shapes and castings					
ALPHAMAX®	High performance, high temperature application					
No Cement/Colloidal						
NANO-TEK®	Two-component, colloidal silica bonded castables					



PRODUCT TECHNOLOGY

<i>Description</i>	<i>Description</i>	<i>Cast</i>	<i>Pump</i>	<i>Shot-crete</i>	<i>Gun</i>	<i>Trowel/Ram</i>
Chemical Bond						
QUICK-FIRE®	Two-component, phosphate bonded castables					
QUICK-FIRE ONE®	Single component phosphate bonded castables					
ACID GUARD	Special purpose chemical resistant castables					
Insulating						
INSULMIX®	Full range of insulating castables and gunning mixes					
PUMPLITE	Pumping insulating castables					
Mortars						
BRIKSET	Full range of air set mortars for brick and coatings					
ARMORSET	Full range of chemically bonded, high temperature mortars					
Plastics						
RAM MAX®	Wide range of ready to use ramming, patches, and seals					
REDIGUN	High performance low rebound gunning plastics.					
Specialized Concrete						
TUFFLOOR®	Industrial flooring castable					

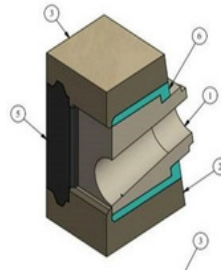


ALLIED EARNS YOUR BUSINESS

- High quality products designed for particular applications
- Manufacturing and on-time delivery
- Excellent technical support from start to finish

MANUFACTURING CAPABILITIES

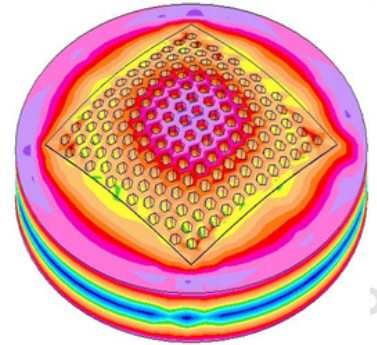
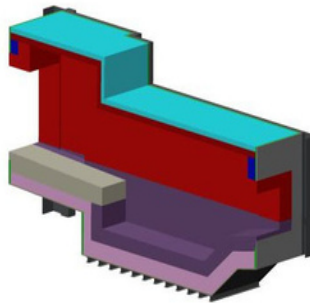
- Flexible manufacturing systems
- Multi-shift production
- 12 manufacturing locations worldwide
- Ongoing operations analysis and improvements



QUALITY CONTROL

A focus on quality and supply products that perform consistently.

- Global quality management team to maintain consistency between all plants
- Raw material pre-qualified before approval for use at any plant
- Raw materials tested and verified when received.
- Batches verified before production to ensure high quality and consistent product.
- Finished products tested by batch and held to strict specifications
- Shelf-life control
- ISO 9001:2015 certified



CUSTOM DESIGN ENGINEERING

Our experienced engineering team can create a custom refractory system for each application and unique service requirement. Our engineered solutions are based on equipment design, thermal considerations, and material characteristics.

- Patented technologies
- Optimized product zoning
- Proven safety lining system designs
- Unique installation techniques



THERMAL & INTEGRATED MATERIALS

In addition to our extensive refractory products, we offer a range of ancillary items to support your process.



- Installation Equipment (mixers, pumps, gunning and vibration systems)
- Firebrick and Insulating Firebrick
- Ceramic Fiber Insulation
- Insulating Board and Blocks
- Stainless Steel and Ceramic Anchors Thermocouples and Wire





°C



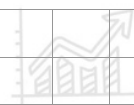
NOTES

refractory



Σ

research



$$\frac{\Delta L}{L_0} = \alpha_L \Delta T$$

thermal expansion



= %



The Allied Difference

Being There Worldwide with Refractory Solutions



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Global **Refractory** Solutions



Scan to view our locations

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