

product overview

Introduction to our Products

Thermal Ceramics is a single-source provider of insulation and refractory technology: fiber, insulating and dense firebricks monolithics and specialized insulation. Each product line has a number of well-known global brands.

Fiber: in blanket, module, paper, vacuum forming boards and shapes, mastic and textile forms for a variety of manufacturing applications. Brands include Superwool, Kaowool®, Cerablanket®, Cerachem®, Cerachrome®, Pyro-Bloc®, FireMaster®.

Insulating and Dense Firebrick: in straight or slab form, in standard or custom-designed shapes. Brands include K®, JM™, TJM™ and SR™-90.

Monolithics: include insulating, general purpose and special duty dense castables. Brands include Tri-Mor®, Kaolite®, Firelite®, Kaocrete®, Firecrete®.

Specialized Insulation: microporous, fired dense refractories, or vermiculite based including BTU-BLOCK™, Min-K®, TR-19®, Cerox® and Valcor®.

Superwool Plus - The Benefits of an Engineered Solution

Superwool **Plus** fiber products uses the same proven chemical formulation as Superwool 607, retaining the advantage of exoneration from any carcinogen classification. However new manufacturing technology developed at our Research and Development Center has given these well proven products new advantages for the 21st Century. In a World where the increasing cost of energy coupled with environmental concerns are starting to dominate our thinking, this new product addresses these issues and offers key advantages over all other high temperature fiber products currently available.

Superwool **Plus** is the solution to the 3 E's. It is an Engineered solution which saves Energy and respects the Environment.

Engineered

An engineered solution takes a product beyond normal performance and gives extra benefits that are specific to a particular need. It has long been understood that the insulation properties of a high temperature wool depend on the number of fibers in any given volume. The challenge was to develop a new manufacturing technique which maximized the number of fibres and reduced thermal conductivity.

Today, the new manufacturing technology is rapidly being

spread to all our fiber manufacturing plants Globally and the new Engineered product has arrived.

Energy

All energy users are conscious of increasing costs and the need to reduce their carbon emissions and so a new insulation material which can reduce energy losses without occupying more space or increasing mass offers real benefits. By maximizing the number of fibers available in the insulation layer, Superwool **Plus** reduces thermal conductivity, reduces the lost energy and reduces the outside temperature.

Furnace tests set up to compare the insulating properties of Superwool **Plus** to other high temperature wools have shown a typical reduction of 20% in the lost energy. This gain can be used by the designer to save energy or, where space is at a premium, to minimise the weight and thickness of the insulation layer.

Environment

Improving the environment means doing it right.

Today all Thermal Ceramics customers are faced with increasing environmental demands. This includes coping with escalating energy costs. It includes improving workplace conditions and concern for the health and well being of workforce and customers alike. Thermal Ceramics recognizes these needs and in developing Superwool **Plus** is offering a new standard of insulation wool which has both health and performance advantages for designers, installers and users alike.

“Doing it right” means more fibers giving improved insulation in a product already proven to have significant health and safety advantages. More fibers give improved insulating properties and the result everyone expects - less wasted energy.



Superwool Plus

the best just got better

Markets & Product Range

E=Superwool Plus -
engineered · energy · environment

Used in a wide range of industries



Providing environmental solutions to the heat recovery steam generation (HRSG) industry

Superwool 607 has become the product of choice for insulating HRSG ductwork and is specified by many of the most prestigious engineering companies. For these companies, Superwool offers the

advantages of low bio-persistence, proven insulation performance and availability on a Global basis from Thermal Ceramics network of manufacturing locations.

Superwool Plus offers the same benefits as Superwool 607 but with the bonus of improved insulation characteristics. Tests in HRSG steel liner construction have shown that the normal insulation performance can be achieved easily using only 80% of the normal insulation thickness. This allows the duct walls to be reduced in thickness saving costs in the steel mounting studs and, more importantly, allowing the HRSG panels to be shipped more efficiently.

Superwool Plus is set to become the new standard for insulating HRSG ductwork. Thermal Ceramics have produced a report detailing the performance of the new material in this application and welcome discussions with HRSG designers who are seeking new engineered solutions to their insulation needs.

Providing energy and environmental solutions in the domestic appliances / OEM marketplace

Manufacturers of domestic appliances such as ovens and storage heaters have long appreciated Superwool for its high temperature resistance and totally odor free properties. Superwool Plus now adds to these benefits by offering a product produced in a new manufacturing process, which is virtually dust free and soft to



the touch. Superwool Plus can be used in product assembly while keeping the workplace clean and reducing any irritation in handling for assembly operators.

In many cases, the improved insulation properties of Superwool Plus have allowed oven manufacturers to adopt advantageous new insulation designs reducing the thickness of material required or simplifying assembly. Our R&D facilities are equipped to analyze the performance of insulation in domestic appliances and we can offer product development advice to engineers using Superwool Plus to develop the next range of appliances.



Superwool Plus Product Range

Superwool Plus is currently available in the following forms:

- **Blanket** - exhibits outstanding insulating properties at elevated temperatures.
- **Folded Modules** - incorporate all the advantages of blanket in a pre-compressed modular form.
- **Bulk** - Excellent thermal stability and retains its original soft fibrous structure up to its maximum continuous use temperature.

Available as:
Lubricated Bulk

and as Un-lubricated Bulk, 3 grades:

Un-chopped fiber / Coarse chopped / Fine chopped fiber

Our product range for Superwool Plus is expanding, please check the website for up-to-date information, or contact your local Thermal Ceramics representative.

 **Thermal Ceramics**
Insulating Our World

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