



THERMICULITE®

Thermiculite®
innovative. versatile. complete.

Thermiculite® is an innovative, versatile and complete gasket material, making it the industry's leading sealing solution.

VERSATILE.

A New Level of Performance

Through our continued dedication to research and development, Flexitallic are also able to offer Thermiculite® Performance Service gasket material.

Thermiculite® Performance Series gasket material – developed for use in more moderate temperature applications – maintains the same broad chemical resistance and freedom from oxidation that has made Thermiculite® Critical Service Series such a success.

COMPLETE.

The Total Static Sealing Solution

This innovative and versatile material is available as a stand alone Coreless sheet material, as a filler for SWG's, as a facing for Kammprofiles/Flange Rescue Gasket, and also in many of our other product lines. Since its inception, Thermiculite® gasket material has proven itself as an effective long-term sealing solution in thousands of the most demanding industrial sealing applications.

With the combination of Thermiculite® Critical Service (800 Series) and Thermiculite Performance (700 Series), a single, proven material can be used for virtually all of your sealing requirements.

**That's why we call Thermiculite®
The Total Static Sealing Solution.**

INNOVATIVE.

Cutting-Edge Material Technology

Ever since inventing the spiral wound gasket in 1912, Flexitallic has been at the forefront of fluid sealing innovation.

In 1998, Flexitallic set new standards for sealing technology with the introduction of Thermiculite® Critical Service Series gasket material available in Tanged Sheet – and later in Spiral Wound Filler and Flexpro™ (kamm-profile) Facing styles.

Exclusive to Flexitallic, this revolutionary material, comprised of chemically and thermally exfoliated vermiculite*, simulated structure of exfoliated graphite, with one notable exception – it maintains integrity through a wide range of high temperatures.

All Thermiculite® Critical Service Series products are designed and engineered for high temperature processes in services up to 1000oC (1832oF).

*Vermiculite, a naturally occurring mineral with a plate-like structure, demonstrating an exceptional broad range of chemical and temperature resistance.

Flexitallic



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There is no comparison. When it comes to worry-free sealing, choose Thermiculite®.

Total Freedom From Oxidation

Conventional graphite gaskets are susceptible to attack by oxidising agents. This occurs from oxygen flowing within the media, or simply from oxygen present in the atmosphere surrounding the flange. The rate at which graphite oxidises depends on the application temperature and the concentration of oxygen present. But when it does happen – the end result is seal failure.

The unique composition of Thermiculite® gasket material ensures that seals maintain their integrity at maximum service temperatures far exceeding that of graphite.

There really is no comparison. When it comes to worry-free sealing, choose Thermiculite® Critical Service Series or Thermiculite® Performance Series and eliminate the risk of oxidation altogether.

REQUIRED SERVICE LIFE IN YEARS	MAXIMUM SERVICE TEMPERATURE		
	Graphite	Thermiculite® 800 Series	Thermiculite® 700 Series
1	366oC (691oF)	1000oC (1832oF)	550oC (1022oF)
3	332oC (630oF)	1000oC (1832oF)	550oC (1022oF)
5	321oC (610oF)	1000oC (1832oF)	550oC (1022oF)
10	304oC (580oF)	1000oC (1832oF)	550oC (1022oF)

PROVEN TRACK RECORD IN THE FOLLOWING INDUSTRIES

- Power Generation
- Fertiliser (Aggro-Chemicals)
- Oil & Gas Exploration
- Industrial Chemicals
- Aerospace
- Oil Refining
- Solid Oxide Fuel Cells
- Green Energy
- Renewable Energy (Solar Thermal, Bioethanol and Energy from Waste EfW)



The Tightness Testing Research Laboratory (TTRL) at Ecole Polytechnic in Montreal on behalf of the Pressure Vessel Research Council (PVRC) performed independent testing to show that the maximum service temperature for graphite in long-term service is much lower than quoted in manufacturers' literature. This table summarises those results.



THERMICULITE® CRITICAL SERVICE SERIES

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Effectively manage your gasket selection process, simplify inventory requirements, and receive proven long-term sealing with Thermiculite® gasket material – The Total Sealing Solution.



Thermiculite® 815 Tanged Sheet

High temperature sheet reinforced with a 0.1mm (0.004") 316 stainless steel tanged core. Available in thicknesses of 0.8mm (1/32"), 1.5mm (1/16") 2.0mm (5/64") and 3.0mm (1/8"), in metre (standard) and 1.5m x 1.5m (60" x 60") sheet. Cut gaskets also available in all shapes and sizes.



Thermiculite® 835 Spiral Wound Filler

High temperature filler material for spiral wound gaskets. Wide range of metals available.



Thermiculite® 845 Flexpro™ (kammprofile) Facing

High temperature Filler and Facing material for kammprofile gaskets. Wide range of metallic core materials available.



Thermiculite® 855 Change™

High temperature Filler and Facing material for use with the Change™ Gasket.



Thermiculite® 894 Packing Material

Critical service packing made from expanded vermiculite foil and Inconel wire.

WHY THERMICULITE® CRITICAL SERVICE SERIES?

- Total freedom from oxidation
- Chemical compatibility exceeds graphite
- Can be used in temperatures up to 1000oC (1832oF)
- Fire safe
- Proven track record
- Wide range of metals available



Allied Distributor



THERMICULITE[®] CRITICAL SERVICE SERIES *Thermiculite*[®]

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Choose Thermiculite[®]
– contact your local
Allied Distributor today.

RECOMMENDED SERVICE CONDITIONS FOR THERMICULITE [®] CRITICAL SERVICE & PERFORMANCE SERIES					
	CRITICAL SERVICE SERIES				PERFORMANCE SERIES
	815	835	845	855	715
Product Type	Tanged Sheet	Spiral Wound Filler	Flexpro (kammprofile) Facing	Change Gasket Filler	Coreless Sheet
Temperature Range	Up to 1000oC (1832oF)	Up to 1000oC (1832oF)	Up to 1000oC (1832oF)	Up to 1000oC (1832oF)	Up to 454oC (850oF)
Pressure Range	Class 150 to 300	Class 150 to 2500	Class 150 to 2500	Class 150 to 2500	Class 150 to 300
Typical Use	High temperatures, nominal pipe sizes, non-standard gaskets, problem applications, critical seals.				Available in cut gasket and 1.5m x 1.5m sheet

WHY THERMICULITE[®] CRITICAL SERVICE SERIES?

- Total freedom from oxidation
- Broad chemical compatibility range
- Fire safe
- Genuine opportunity for gasket standardisation and inventory consolidation
- Wide service capability

THERMICULITE[®] 715 CORELESS SHEET

High performance coreless sheet material. Replacement of compressed fibre sheet line, SF2401, SF2420, SF3300, SF5000 and tanged graphite sheet. Available in thicknesses of 0.8mm (1/32"), 1.5mm (1/16") and 3.0mm (1/8") in cut gaskets and 1.5m x 1.5m (60" x 60") sheet.

