



**FLEXITALLIC LIMITED**

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**PRODUCT REFERENCE:** *FLEXITALLIC THERMICULITE™ 815*

**DESCRIPTION:** *High temperature, chemically resistant sheet sealing material comprising chemically and thermally exfoliated vermiculite on a 316 stainless steel core.*

**SERVICE:** *Maximum Service Temperature 980°C (1800°F)*  
*Maximum Service Pressure 20 MPa (200 bar;2900 psi)*

**NOTE:** *This product is NOT intended for, and is NOT suitable for use as the facing for Flexpro gaskets. For Flexpro gaskets use Thermiculite 845.*

**PROPERTIES:**

- \* *Conformable.*
- \* *Resilient.*
- \* *Suitable for high temperature applications.*
- \* *Excellent gas and liquid sealing characteristics.*
- \* *Good stress retention.*
- \* *Withstands extremes of thermal cycling.*
- \* *Suitable for use in high pressure, high temperature steam sealing applications.*
- \* *Chemically resistant.*
- \* *Very low halogen content coupled with a sulphur free curing system gives excellent resistance to corrosion.*
- \* *Suitable for seawater service. This contrasts with products based on exfoliated graphite where galvanic corrosion can occur.*
- \* *Not susceptible to thermal oxidation.*

**TYPICAL PHYSICAL PROPERTIES**

Thickness (mm)		0.75	1.5	2.0	3.0	4.0
Facing Density	gcm <sup>-3</sup>	1.2	1.2	1.2	1.2	1.2
ASTM Compressibility	%	33	44	40	44	51
ASTM Recovery	%	13	9	9	8	7
BS 7531 Gas Permeability	mL/min	0.06	0.13	0.15	0.17	0.14
BS 7531 Stress Retention @ 300°C	MPa	34	31	26	17	12
DIN 52913 Stress Retention @ 300°C	MPa	-	35	-	-	-
Sulphur Content	ppm	< 50 ppm				
Chloride Ion Content	ppm	< 50 ppm				
Thermal Conductivity (3mm)	W/cm/K	1.8x10 <sup>-3</sup>				

**AVAILABILITY:** *Thickness range 0.75 mm to 4 mm*  
*Sheet size 1m x 1m & 1.5 x 1.5*  
*Larger gaskets can be manufactured by using Flexitallic Thermiculite Paste*

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This Data Sheet refers to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same.

We reserve the right to change the details given on this Data Sheet as additional information is acquired. Customers requiring the latest version of this Data Sheet should contact our Applications Engineering Department.

The information given and, in particular, any parameters, should be used for guidance purposes only. The Company does not give any warranty that the product will be suitable for the use intended by the customer

## **HEALTH AND SAFETY**

***Because of the processes which take place during manufacture, the product is believed to present no health and safety hazard and, under normal handling and use it is unlikely that the product will give rise to significant levels of exposure to constituent materials.***

***Flexitallic Thermiculite 815 is a laminate comprising chemically and thermally exfoliated vermiculite reinforced with a tanged stainless steel core.***

***Under harsh mechanical treatment (e.g. high speed stamping operations or abrasion) the constituents may give rise to irritant dust which, in extreme cases of exposure, could lead to more serious respiratory problems. Occupational exposure to such dusts should therefore be minimised and kept below relevant national exposure limits. Good standards of hygiene should be applied during gasket cutting operations and off-cuts should be disposed of by transfer to a site appropriately licensed to accept industrial materials of this nature.***

***Vermiculite is not combustible.***

***Tanged steel may have very sharp edges; handle with care, particularly after cutting.***