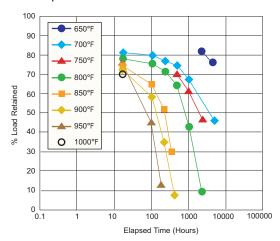
Technical Information

Graph 1 illustrates the loss of load over time for graphite as a function of temperature.



Graph 1 - Flexible graphite relaxation as a function of time and temperature (data generated by TTRL)

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with a 0.004 in. thick 316 SS tanged core.

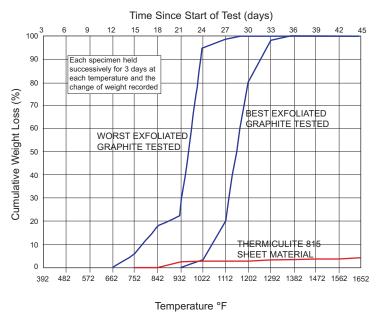
Product Reference Thermiculite 815 Tanged Sheet

Service	Maximum Service Temperature		1800°F (982°C)		
	Maximum Tested Pressure	2900 psi (200 bar)			
Typical Physical Properties	Thickness	in.	1/32	1/16	1/8
	Facing Density	lb/ft³	75	75	75
	ASTM F36 Compressibility	%	33	44	44
	ASTM F36 Recovery	%	13	9	9
	BS 7531 Gas Permeability	mL/min	0.06	0.13	0.17
	BS 7531 Stress Retention @ 570°F	psi	4930	4500	2470
	ASTM F38B Creep Relaxation	1/32"		23.5%	
Availability	Thickness Range		1/32", 1/16", 1/8"		
	Sheet Size		1 m x 1 m, 60" x 60" (special)		

- Thermiculite 815 Tanged Sheet can be laser and waterjet cut.
- Seal large diameter gaskets at the dovetails with Thermiculite paste.

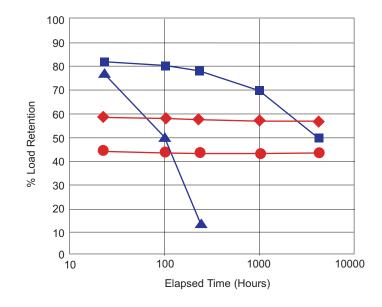
Technical Information

As seen in **Graph 2 below**, Thermiculite is thermally stable at high temperatures.



Graph 2 - Cumulative iso-thermal weight loss results for the best and worst exfoliated graphites and Thermiculite 815 sheet as a function of temperature.

Unlike graphite, the load loss at operational temperatures does not increase with time when using Thermiculite, as shown in **Graph 3**.



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- Graphite @ 950°F (510°C)
- Thermiculite @ 698°F (370°C)
- Thermiculite @ 950°F (510°C)

Graph 3 - Thermiculite relaxation vs. temperature in comparison with data from Graph 1.

ROTT TEST DATA Thermiculite 815 Tanged Sheet 4.875 x 5.875 x 0.086 in.

Gb	1,906 psi	
a	0.2	
Gs	456 psi	
T_{pMIN}	18	
T _{pMAX}	58,645	
s ₁₀₀	4,788 psi	
S ₁₀₀₀	7,588 psi	
S ₃₀₀₀	9,400 psi	
S ₁₀₀₀₀	12,026 psi	

Note the very high level of tightness.

Design Properties

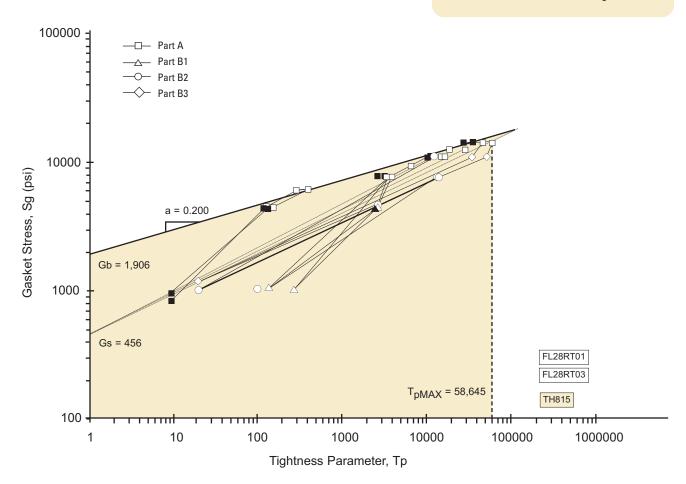
m	2.0
Υ	2,500 psi

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