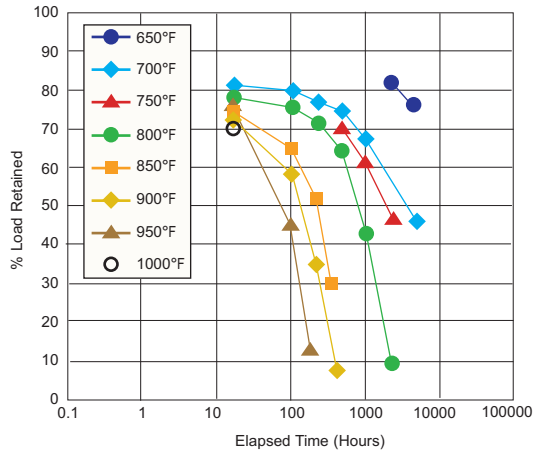


### Technical Information

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)

### Thermiculite®

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**CRITICAL SERVICE SERIES**  
**Thermiculite® 815 Tanged Sheet, high temperature sheet material reinforced with a 0.004 in. thick 316 SS tanged core.**

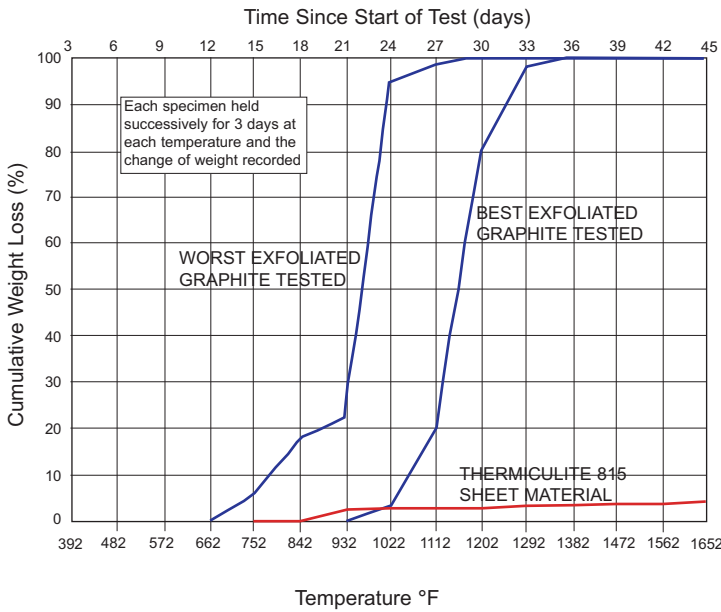
**Product Reference**      **Thermiculite 815 Tanged Sheet**

<b>Service</b>	Maximum Service Temperature	1800°F (982°C)			
	Maximum Tested Pressure	2900 psi (200 bar)			
<b>Typical Physical Properties</b>	Thickness	in.	1/32	1/16	1/8
	Facing Density	lb/ft <sup>3</sup>	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%		
<b>Availability</b>	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.

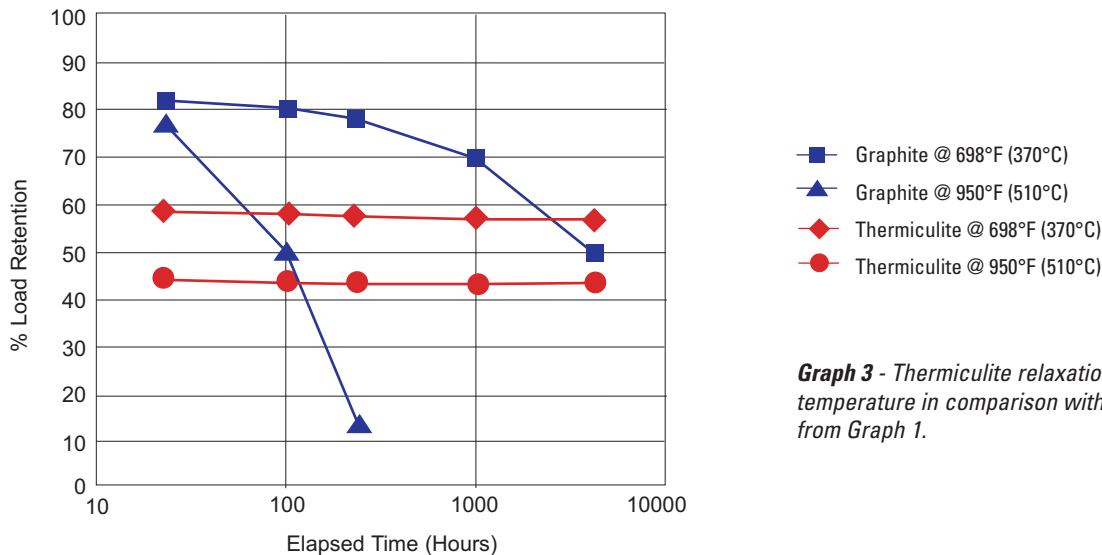
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Unlike graphite, the load loss at operational temperatures does not increase with time when using Thermiculite, as shown in **Graph 3**.



**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 0.1875 in.**

G <sub>b</sub>	1,906 psi
a	0.2
G <sub>s</sub>	456 psi
T <sub>p</sub> MIN	18
T <sub>p</sub> MAX	58,645
S <sub>100</sub>	4,788 psi
S <sub>1000</sub>	7,588 psi
S <sub>3000</sub>	9,400 psi
S <sub>10000</sub>	12,026 psi

*Note the very high level of tightness.*

**Design Properties**

m	2.0
Y	2,500 psi

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**CRITICAL SERVICE SERIES**  
**Thermiculite® 815 Tanged Sheet, high**  
**temperature sheet material reinforced**  
**with a 0.004 in. thick 316 SS tanged core.**

