

CRITICAL SERVICE SERIES
Thermiculite® 815
Tanged Sheet



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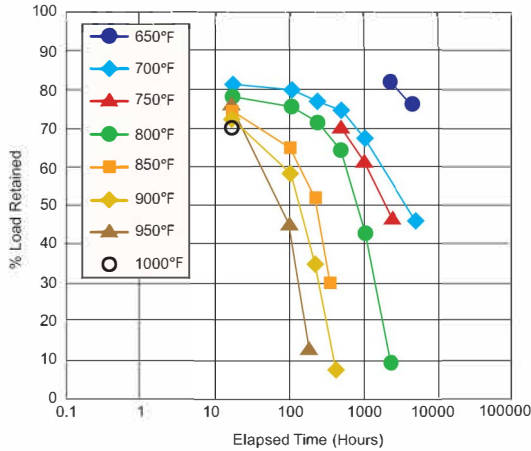
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Technical Information

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®

INNOVATIVE. VERSATILE. COMPLETE.



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

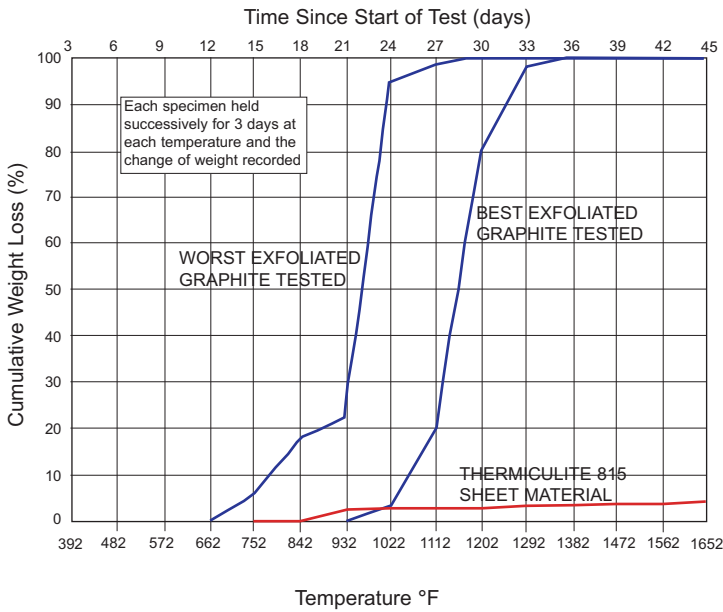
Product Reference **Thermiculite 815 Tanged Sheet**

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/ft ³	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
Availability	ASTM F38B Creep Relaxation	1/32"	23.5%		
	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. (Ask Technical Department for waterjet cut procedure.)
- 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.

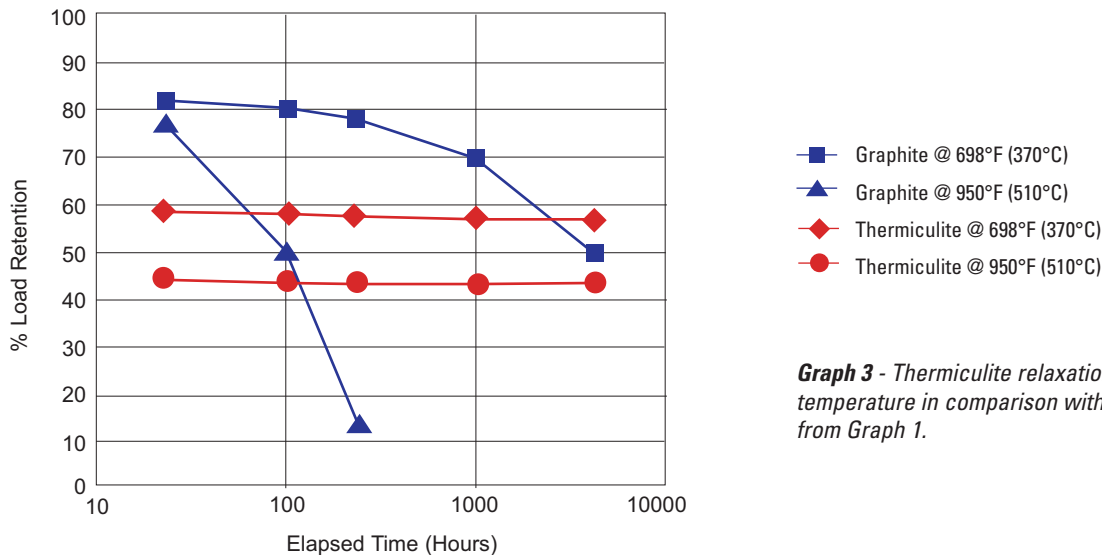
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Unlike graphite, the load loss at operational temperatures does not increase with time when using Thermiculite, as shown in **Graph 3**.



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 _b	1,906 psi
a	0.2
G _s	456 psi
T _p MIN	18
T _p MAX	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
Y	2,500 psi

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