



PS-1593-0.25

Product Description:

P-THERM® PS-1593-0.25 is an ultra-soft silicone based thermally conductive gap filler with an embedded fiberglass support. PS-1593-0.25 boasts enhanced flexibility with its lower profile fiberglass dielectric layer over similar products used for thermal management in consumer electronic and automotive applications.

Construction / Properties:

General	Property	Value	Test Method
	Color	Green	Visual
	Thickness Range	0.25 mm	ASTM D374
	Reinforcement Carrier Type	Fiberglass	--
	Density (g/cc)	2.44	ASTM D792
	Heat Capacity (J/g K) @ 50 C	0.80	ASTM E1269
	Hardness (Shore 00)	47	ASTM D2240
	Total Mass Loss (@ 125 C/24 hrs)	0.12%	ASTM E595**
	Flammability Rating	V-0	UL 94
	Continuous Use Conditions	-60 - 200 C	QSP-754

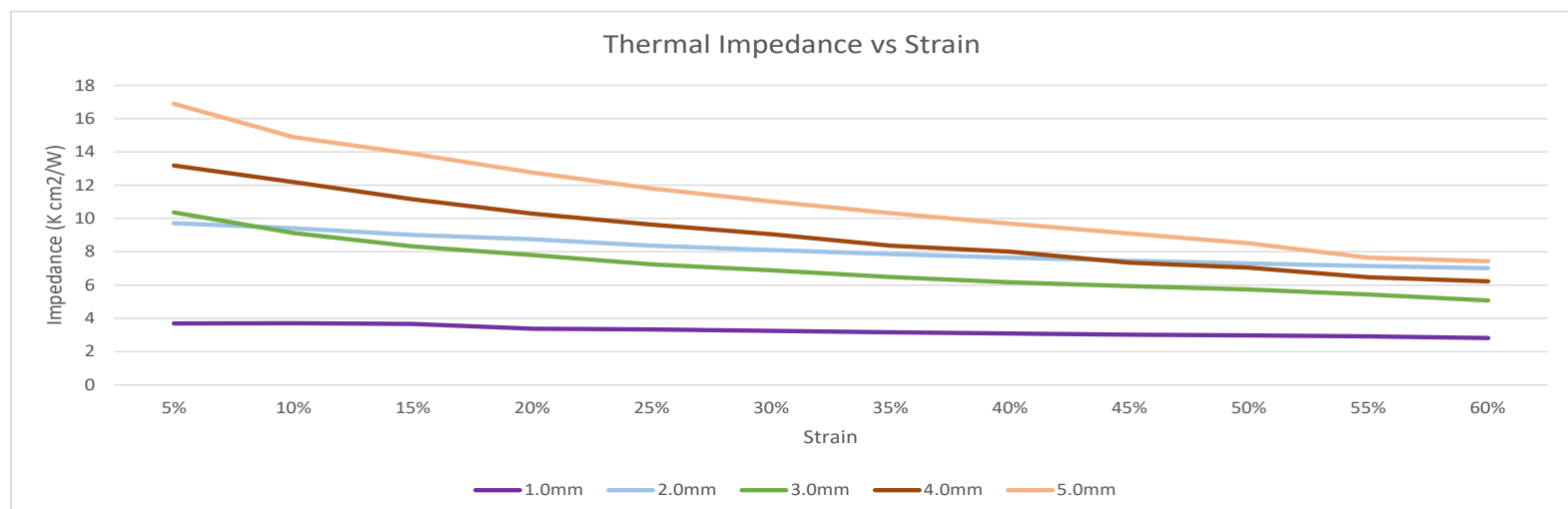
Electrical	Property	Value	Test Method
	Dielectric Breakdown Strength (kV/mm)	8.30	ASTM D149
	Volume Resistivity (ohm-cm)	1.0E+09	ASTM D257

Thermal	Property	Value	Test Method	
	Thermal Conductivity	3 W/m K	ASTM D5470*	
	Thermal Performance vs. Strain			
	Deflection (% Strain)	10	20	30
Thermal Impedance (K cm ² /W) @ 0.25mm	1.82	1.66	1.57	

* Thermal conductivity tested at 20% strain.

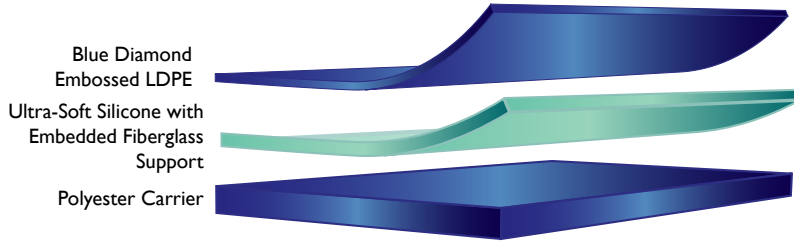
** Tested at atmospheric pressure

*** Values tested include interfacial thermal resistance: Application performance is directly related to surface roughness, flatness and pressure applied.



Features:

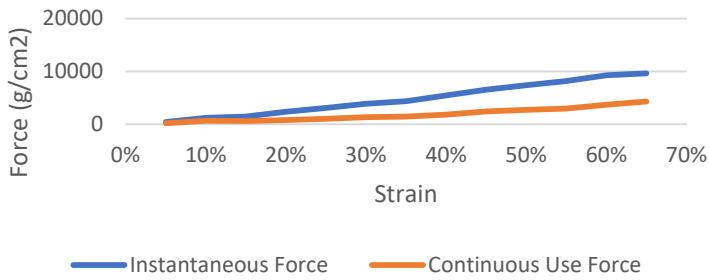
- Excellent Thermal Conductivity
- Excellent Compression Characteristics
- Good Wet-Out
- Superb Flexibility
- Excellent Converting Properties
- RoHS and HF Compliant



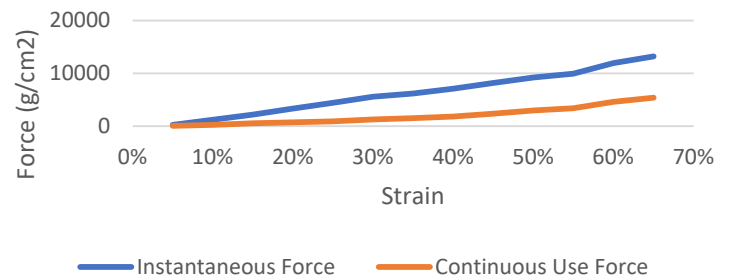
Applications:

- LED Lighting
- Battery Components
- Infotainment Modules
- Smartphones
- Tablets
- Computers
- Digital Personal Assistants
- Automotive Lighting

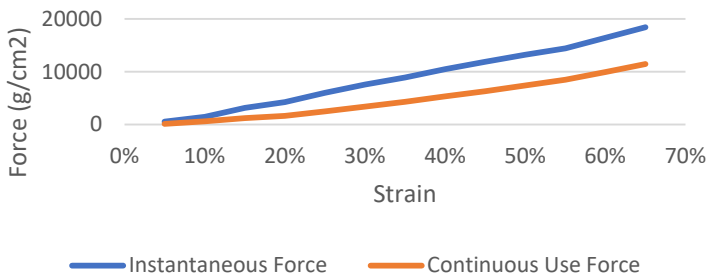
0.5mm Compression Force Deflection



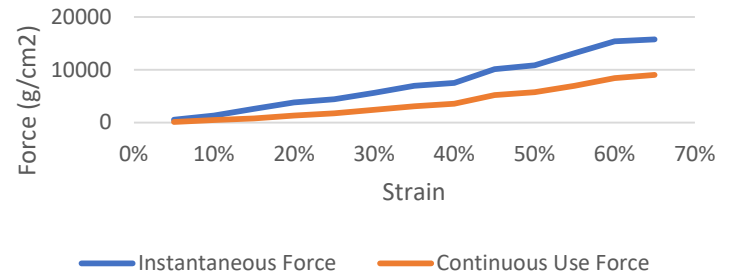
1.0mm Compression Force Deflection



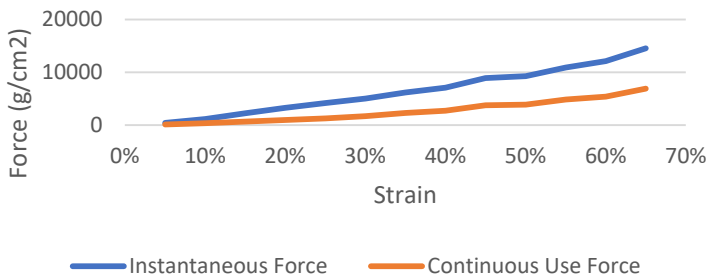
1.5mm Compression Force Deflection



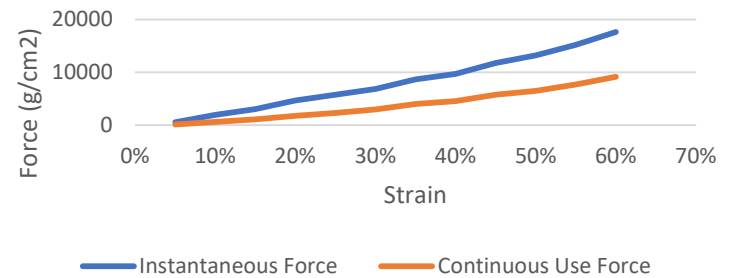
2.0mm Compression Force Deflection



2.5mm Compression Force Deflection



3.0mm Compression Force Deflection



Specific tests should be performed by the end user to determine the product stability for the particular application.

For Additional Information:

E-mail: sales@polymerscience.com
 Toll Free: +1 888.533.7004
 Web: www.polymerscience.com
 Revision: 040621