

*We have one goal — improving the noise and vibration quality of our customers' products. Roush delivers innovative, effective noise and vibration control products and solutions. By combining advanced analysis capabilities, comprehensive engineering services, and state-of-the-art facilities, Roush has become a proven partner in identifying and resolving challenging noise and vibration issues. Backed by the diverse capabilities of the Roush family of companies, we are uniquely equipped to provide turnkey noise and vibration solutions.*

*Roush... your silent partner in developing smoother, quieter products.*

## Damping Adhesive — RA981-B

### Product Description

RA981-B is a “green” permanent pressure sensitive adhesive designed to have high damping performance over a wide temperature and frequency range. Its “clean” raw materials and processes make it an environmentally friendly adhesive with greatly reduced Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) impact to the environment.

### Features

RA981-B damped viscoelastic adhesive offers superior damping performance over a wide temperature and frequency range with peak damping active from 40°F to 170°F for most applications. This material is specially processed to achieve cleaner outgassing properties over generic pressure sensitive adhesives. This makes RA981-B ideal for use as a laminate or constrained layer damping product.

### Typical Adhesive Physical Properties:

Thickness.....	available in a variety of custom thicknesses/constructions (+/- 10%)
Release Liner.....	available with variety of liner combinations
SAFT <sup>1</sup> (ASTM D4498, 1"x1" sample w/0.5 kg).....	>350°F w/2 mm down
180° Peel Adhesion <sup>1</sup> (ASTM D3330 @ 75°F @ 12 in/min).....	2 lbf/in minimum
Shear Adhesion <sup>1</sup> (ASTM D3654 @ 75°F, 0.5"x1" sample w/1 kg).....	>24 hours
Heat, Water, Humidity and Solvent Resistance.....	Excellent
<b>Temperature Range:</b>	
Adhesion.....	For best results, apply at 75°F with 50 PSI for 6 seconds
Damping at 1000Hz.....	Excellent damping from 40°F to 170°F
Operating <sup>2</sup> .....	-40°F to 302°F
<b>Outgassing and Cleanliness:</b>	
Siloxanes (Dynamic Headspace GC-MS: ng/cm <sup>2</sup> ).....	Not Detected
RoHS.....	Pass
Halogens (IEC-61249-2-21).....	Pass

**Shelf Life:** Two years when stored under cool, dry conditions and out of direct sunlight (70°F, 50% RH)

**Note:** (1) All samples tested on SS 304 2B substrate.

(2) Maximum operating temperature will depend on specific application and should be verified by customer for their final application.





NOISE AND  
VIBRATION  
CONTROL  
PRODUCTS

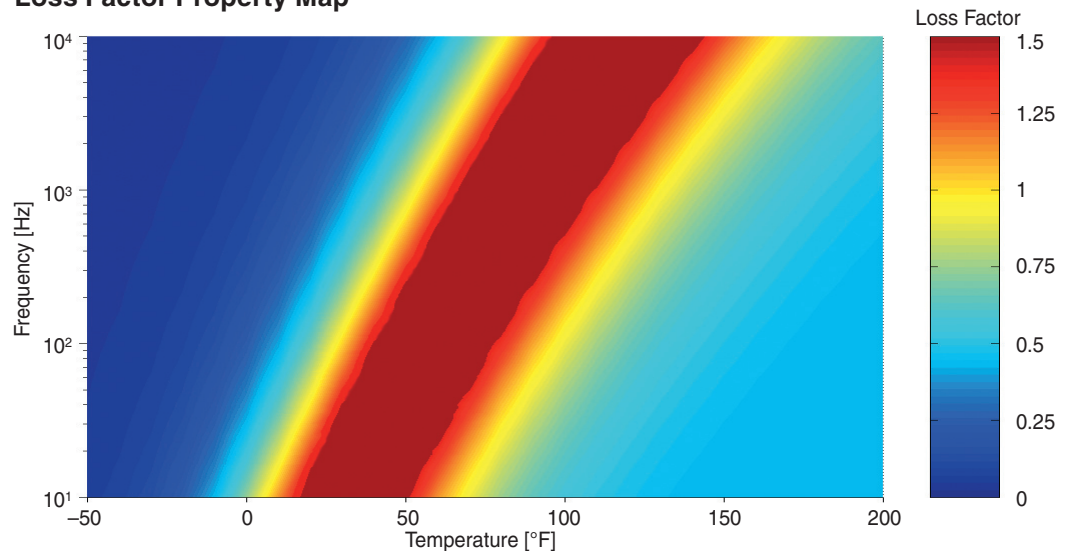
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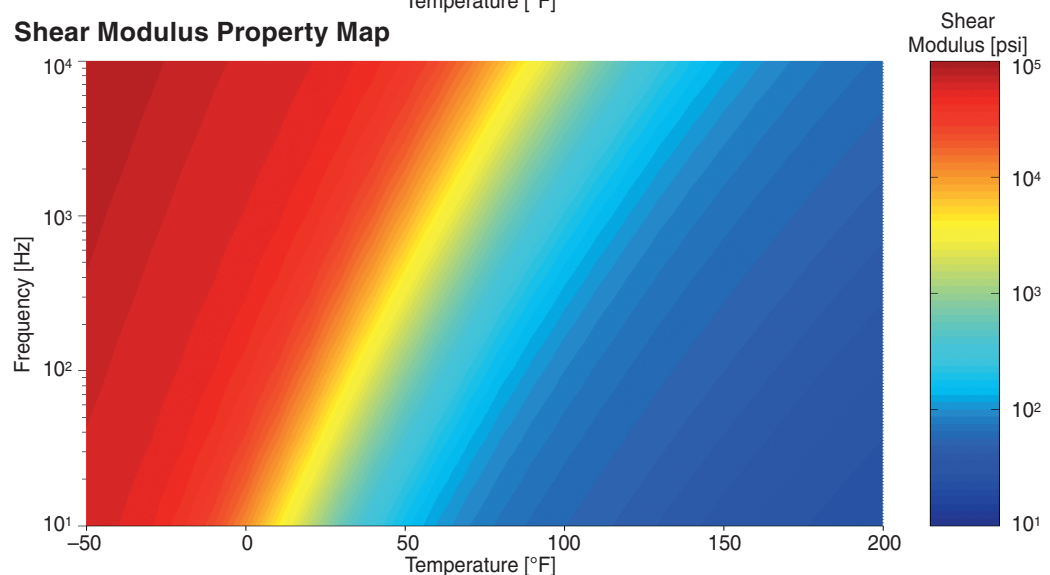
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## RA981-B – Dynamic Material Properties (ASTM E756 Test Results)

### Loss Factor Property Map



### Shear Modulus Property Map



### Full Service Noise and Vibration Control Support

Let Roush assist you with your noise and vibration control activities. We offer a full range of design, engineering, testing, and manufacturing capabilities.

As an alternative to this material, we can search our database of over 3,000 materials to identify other potential material solutions. Once selected, Roush uses design and analyses to optimize the configuration of the material for your specific application.

Roush provides manufacturing operations to convert this material into a finished part that can be delivered to your specifications. Roush has many worldwide partners that provide a wide array of low cost manufacturing processes with high quality production output.

Contact us or visit our website at [www.roush.com/NVH](http://www.roush.com/NVH) for more detailed information on Roush's full-service capabilities.

#### Product Performance and Suitability:

All information regarding the use of Roush products identified in this datasheet is believed to be reliable by Roush, but are not product specifications and must only be used as a guide. Roush does not represent or warrant that its products are fit for a particular purpose or that they do not infringe any U.S. or foreign patents. Purchaser must independently determine the suitability of the Roush products for their particular application. Unless written otherwise in Roush's Terms and Conditions of Sale for the product, this datasheet or any verbal statements made by any other distributor, salesman or representative about the product will not be deemed to create an express warranty of any kind.