Roush provides viscoelastic material testing, recommendations for product applications, and manufactured damping and isolation products. We're focused, efficient and we deliver.

We have one goal — improving the noise and vibration quality of our customers’ products. Roush delivers innovative, effective noise and vibration control 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.

Roush engineers and manufactures viscoelastic material based solutions for a wide variety of noise and vibration control applications. Roush’s Viscoelastic Materials Laboratory is one of the core technologies supporting the development of these products. Extensive research and our proprietary database of over 3,000 viscoelastic materials provides invaluable support for Roush’s ongoing NVH projects. With a suite of material measurement equipment and software, each material in our database has been tested to determine its loss factor (damping) and modulus (stiffness) versus both temperature and frequency.

**Applications and Products**
- Isolation Systems
- Vibration Absorbers
- Damping Systems
  - Laminated Metal
  - Free Layer Treatments
  - Constrained Layer Treatments
  - Tuned Mass Dampers

**Solution Development Process**
- Model Generation
- Dynamic Simulation
  - Roush Analysis Tools
  - Linear and Nonlinear FEA
  - Modal Strain Energy
- Materials Search
- Product Design/Evaluation
- Experimental Evaluation
- Production Launch

Roush provides viscoelastic material testing, recommendations for product applications, and manufactured damping and isolation products.
Viscoelastic Materials Testing Capabilities
Roush routinely provides viscoelastic material testing services for a wide range of materials and customers. Stiffness and damping properties of materials can be determined under a variety of test conditions. This information is used for material selection and design for noise and vibration control products.

Static and Dynamic Material Characterization
- Complex Modulus (includes modulus and loss factor)
- Temperature and frequency dependence
- Static prestrain dependence
- Dynamic amplitude dependence

Standard Tests
- Vibrating beam tests (ASTM E-756)
- Oberst bar tests
- Impedance tests
- Load deflection tests
- Creep and relaxation tests
- Resonance tests
- Accelerated aging tests
- Peel and shear adhesion
- Fluid exposure

Types of Materials
- Adhesive
- Rubber
- Plastic/Composite
- Foam
- Mastic
- Many others

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.

For more information on Roush’s products and services, please visit our website at www.roush.com.