# Technical data sheet



**Product:** 435

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: **KLEBEBAND** 

Article group: **EINSEITIG** 

07.12.2025 Download:

# 3M VIBRATION DAMPING TAPE 435

This data sheet was provided to you by Tewipack Uhl GmbH. The company tewipack Uhl GmbH assumes no responsibility for the topicality and the Accuracy of the information contained. The properties of the products can vary due to various influences such as composition and condition of the Substrate, impurities in or on the substrate, temperature and humidity at the Change storage and environmental conditions during use. Using this product in combination with other material, the customer is responsible for to check through our own tests whether the product is suitable for the planned combination and whether this combination delivers the expected results





**Technical Data Sheet** 

3M<sup>™</sup> Vibration Damping Tape 435





Last Revision Date: May, 2022

English

Product Details

Regulatory Info/SDS

#### **Product Description**

3M™ Vibration Damping Tapes are low temperature 3M™ Viscoelastic Damping Polymers coated on a dead soft aluminum foil constraining layer. They have pressure sensitive properties and are furnished in roll form and designed for direct, pressure sensitive application to metal and composite panels for vibration damping purposes. The combination of the low temperature 3M viscoelastic polymers and an aluminum constraining layer has proven to be an unique construction with exceptional ability to damp resonant vibrations in the temperature range of -76° to +68°F (-60° to +20°C), with survivability from -76° to +248°F (-60° to +120°C).

#### **Product Features**

- Pressure sensitive construction for easy application.
  Excellent aging qualities of the 3M viscoelastic damping polymer type 830 provide long term performance and has excellent resistance to most hydrocarbon and/or aircraft type solvents.

  • Wide temperature range for damping. Usable from -76° to 68°F (-60° to 120°C) at 100 Hz plus higher temperatures at
- higher frequencies.
- These linered products offer the user die-cut capability.

#### **Technical Information Note**

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

#### **Typical Physical Properties**

Attribute Name	Test Method	Value	
Weight	ASTM D1000	0.675 g/m <sup>2</sup> (0.138 lb/in <sup>2</sup> )	
Damping Polymer		Synthetic	
Damping Polymer Thickness		0.14 mm (5.5 mil)	
Backing		Dead Soft Aluminum Foil	
Backing Thickness		0.2 mm (8 mil)	
Total Tape Thickness	ASTM D3652	0.34 mm (13.5 mil)	
Liner		Polypropylene	
Primary Liner Color		Blue	
Water Vapor Transmission	ASTM D3833	0.1 g/100 in²/24 h	

## **Typical Performance Characteristics**

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C (72 °F)	724 N/cm (65 oz/in) <sup>1</sup>
Elongation at Break	ASTM D3759		12 %
Tensile Strength	ASTM D3759		147 N/cm (1350 oz/in)
Long Term Temperature			120 °C (248 °F) <sup>2</sup>
Resistance			
Minimum Long Term			-60 °C (-76 °F) <sup>2</sup>
Temperature Resistance			
Flammability Test			Pass FAR 25.853(a)

<sup>&</sup>lt;sup>1</sup> 12 in/min (300 mm/min)

<sup>&</sup>lt;sup>2</sup> Long Term (day, weeks)

## **Typical Damping Properties**

**Note Regarding Dynamic Mechanical Properties:** 

The shear storage modulus (G') and loss factor of a viscoelastic adhesive are two parameters used to partially define the damping performance when used in the form of a constrained layer damping treatment. The above curves illustrate these data as a function of frequency and temperature in the form of a reduced temperature nomograph. While the damping performance of a constrained layer damping treatment depends largely on the dynamic mechanical properties of the viscoelastic adhesive alone, it is also dependent on other parameters. Namely the geometry, stiffness, mass and mode shape of the combination of the damper and the structure to which it is applied will also affect the damping performance.

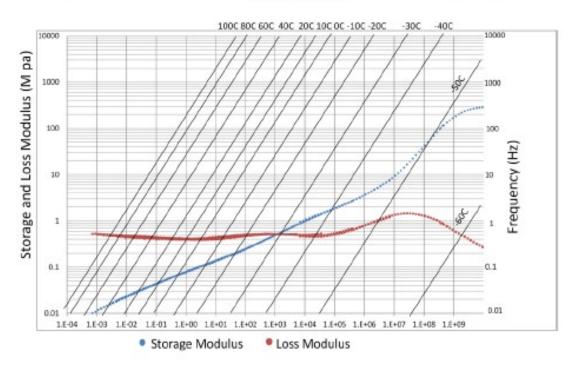
To determine the dynamic mechanical properties at the desired temperature and frequency proceed as follows:

Locate the desired frequency on the right vertical scale.

Follow the chosen frequency horizontally to the desired temperature isotherm.
 From the intersect, move vertically up and/or down until crossing both the modulus and loss factor curves.

4. Read the shear storage modulus and loss factor values from the left vertical scale.

# Dynamic Mechanical Properties of 3M<sup>™</sup> Viscoelastic Damping Polymer Type 830 (Without Foil)



## **Handling/Application Information**

# **Application Examples**

For lower temperature aerospace and industrial applications.

• Reduce unwanted resonant noise, vibration and fatigue in metal panels and support structures.

Chutes, conveyors, bins, metal shop boxes and tables where metal contact with materials can result in unwanted vibration.

#### **Storage and Shelf Life**

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton. To obtain best performance, use this product within 24 months from date of manufacture. To obtain best performance, use this product within 24 months from date of manufacture

## **Ordering Information**

To obtain best performance, use this product within 24 months from date of manufacture

#### **Automotive Disclaimer**

**Select Automotive Applications:** This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

#### **Information**

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

#### **ISO Statement**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

#### **For Additional Information**

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550 or visit www.3M.com/industrialtape. Address correspondence to: 3M Industrial Adhesives and Tapes Division, Building 225-3S-06, St. Paul, MN 55144-1000. Our fax number is 877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

3M Industrial Adhesives and Tapes Division 3M Center, Building 225-3S-06 St. Paul, MN 55144-1000 800-362-3550

©3M 2022 (5/22)