



Heavy Duty Aluminum Foil Tape

438

Technical Data

Product Description

A 5-mil aluminum foil tape with a transparent acrylic adhesive to use when a heavier weight foil (than 425 tape) is required.

Product Construction

Backing	Adhesive	Color	Standard Roll Length
Aluminum foil	Acrylic	Shiny silver	60 yds. (55 m)

Typical Physical Properties

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

		ASTM Test Method
Adhesion to Steel:	43 oz./in. width (47 N/100 mm)	D-3330
Tensile Strength:	59 lbs./in. width (1033 N/100 mm)	D-3759
Backing Thickness:	5.0 mils (0.13 mm)	D-3652
Tape Thickness:	7.2 mils (0.18 mm)	D-3652
Elongation at Break:	10%	D-3759
Temperature Use Range:	-65° to 300°F (-54° to 149°C)	
Water Vapor Transmission Rate:	0.1g H ₂ O/100 sq. in./24 hrs. (1.55 g/m ² /24 hrs.)	
Weight:	0.0217 lbs./yd./in./width (0.0109 kg/m/24 mm)	

General Information

- Flame resistant. Meets U.L. 723, Class “L” low flammability rating (File R 7311).
- Meets requirements of F.A.R. 25.853(a).
- Foil backing provides an excellent reflective surface for both heat and light.
- Aluminum foil backing and acrylic adhesive system combine to offer long aging both indoors and out.
- The high coefficient of expansion offered by the aluminum allows expansion and contraction with changes in temperatures, along with thermal conductivity.
- Performs in a range from -65° to over 300°F (-54° to 149°C). Higher temperatures for shorter periods of time.

Shelf Life

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

Heavy Duty Aluminum Foil Tape

438

page 2 of 2

Application Ideas

- Barrier, protector and thermal conductor in appliance (electronics) industry.
- Use when customer specification calls for a 5-mil (0.13 mm) foil as a barrier for vinyl coated wires in many applications in appliance industry.
- Patch tears in skins of aircraft and truck trailers.

Features

Features

- 5-mil aluminum foil backing
- Acrylic adhesive

Advantages

- Heavy protection Heavier than many foil backings
- Heat reflective
- Non-flammable Meets U.L. 723 Class "L"
- Long aging

Benefits

- Helps protect parts from water, dust and chemical damage
- Helps protect parts from heat
- Will not aid combustion
- Helps reduce replacement cost

Technical Information and Data

The technical information and data, recommendations, and other statements provided in this brochure are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be used with the 3M product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limited Warranty and Limited Remedy

The 3M product will be free from defects in material and manufacture for a period of one (1) year from the date of manufacture. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If the 3M product is defective within the warranty period stated above, YOUR EXCLUSIVE REMEDY AND 3M'S SOLE OBLIGATION SHALL BE, AT 3M'S OPTION, TO REPLACE OR REPAIR THE 3M PRODUCT OR REFUND THE PURCHASE PRICE OF THE 3M PRODUCT.

Limitation of Liability

Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, warranty, negligence, or strict liability.

ISO 9002

This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

3M

Industrial Tape and Specialties Division

3M Center, Building 220-7W-03
St. Paul, MN 55144-1000
1 800 362 3550
1 800 223 7427 Fax on Demand
www.3M.com/industrialtape

© 3M IPC 2001
All rights reserved.

70-0709-5015-2
January 31, 2001