

3M™ Acrylic Foam Tape 5314

Technical Data Sheet





3M[™] Acrylic Foam Tape 5314 is a 0.76 mm (0.030 in) thick, gray, double-coated acrylic foam tape commonly used for the attachment of automotive exterior trim parts such as body side moldings.

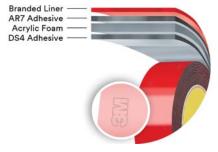
Product features of 3M AFT 5314 include:

- Unique foam core that provides stress relaxation when high application loads are encountered, while maintaining tight bond-line aesthetics under normal conditions.
- Bonds to a variety of automotive substrates.
- Provides high final adhesion and peel strength.

3M AFT 5314 is a medium density foam tape providing a balance of conformability and strength. The acrylic foam core has unique viscoelastic properties that allow it to elongate and relax when put under load, thereby minimizing stress on the adhesive bond line. 3M AFT 5314 has AR7 adhesive on the liner side of the product for bonding to automotive paint surfaces, and DS4 adhesive on the non-liner side of this product for bonding to the exterior trim part. Since product performance will depend on actual conditions within a specific application, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular material purpose and suitable for the user's method of application.

Potential applications of 3M AFT 5314 are the attachment of mechanically sill plates, nameplates, and narrow body side molding.

Product Construction



Liner Options

See the technical update "<u>3MTM Acrylic Foam and Acrylic Plus Tapes: Product Constructions</u>" for liner and tabbing information.

Physical Properties

	5314		
Thickness Range	0.76 mm ±0.08 mm (0.030 in ±0.003 in)		
Density Range	688 kg/m³ ±80 kg/m³ (43 lb/ft³ ±5 lb/ft³)		

Roll Width and Length

3M™ Acrylic Foam Tapes are available in the following standard widths. Millimeter widths -- rounded to the nearest whole number-- and 1/8-inch increments starting with 1/4 inch.

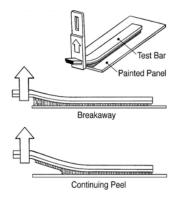
Minimum widths: 4 mm Levelwound, 5 mm Planetary (Standard versions)

Roll Width	Roll Width Tolerance	Roll Length (max)			
Planetary Rolls					
< 7 mm (< 0.276 in)	+/- 0.38 mm (+/-0.015 in)	66 M (72 yds)			
7 - 9 mm (0.276 - 0.375 in)	+/- 0.38 mm (+/-0.015 in)	99 M (108 yds)			
10 - 18 mm (0.394 - 0.709 in)	+/- 0.38 mm (+/-0.015 in)	160 M (175 yds)			
> 18 mm (> 0.709 in)	+/- 0.76 mm (+/- 0.030 in)	160 M (175 yds)			
Levelwound Rolls					
4 – 16 mm (0.157 – 0.630 in)	+/- 0.38 mm (+/-0.015 in)	900 M (984 yds)			

Performance Properties

Typical performance of 3M[™] Acrylic Foam Tape 5314 is shown below. Peel and shear values depend on plastic substrate characteristics and/or paint composition. These values are for reference only.

Breakaway and Continuous Peel



72 hrs at 22°C (72°F)	Breakaway Peel	89 N/12.7 mm	(20 lbs/.5 in)
	Continuous Peel	31 N/12.7 mm	(7 lbs/.5 in)
72 hrs at 70°C (158°F)	Breakaway Peel	111 N/12.7 mm	(25 lbs/.5 in)
	Continuous Peel	40 N/12.7 mm	(9 lbs/.5 in)
72 hrs at 38°C /100% RH (100°F/100%RH)	Breakaway Peel	80 N/12.7 mm	(18 lbs/.5 in)
	Continuous Peel	36 N/12.7 mm	(8 lbs/.5 in)

Breakaway and continuous peel tests are run with 12.7 mm (0.5 in) wide tape on PVC test bars. Tests were run on base coat/clear coat paint at a separation rate of 305 mm/min (12 in/min).

Static Shear

Exceeds 100 hours at 70°C (158°F). Static shear tests are run with 12.7 mm (0.5 in) wide by 50.8 mm (2 in) long tape on PVC test bars, 6.8 kg (15 lbs) roll-down against stainless steel. Static weight is 250 gm (0.55 lbs).



Shelf Life

One year from date of receipt by customer when stored at 4°C - 38°C (40°F - 100°F) and 0 - 95% relative humidity. Optimum storage conditions are 22°C (72°F) and 50% relative humidity.

Regulatory Information

Please refer to the product label and Safety Data Sheet (SDS) for health and safety information before using. Observe proper handling precautions as outlined in the SDS, which is available on request or at www.3M.com/msds.

The product is published as a material entry and is available for access on www.mdsystem.com. For product IMDS I.D. number, email requests to 3M-IMDSrequest@mmm.com.

Contact Information

The information provided in this technical document is intended as a guide for this product. For more information or help in selecting a 3M product for an application, please contact your 3M technical service representative or call 1-800-328-1684.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer: Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 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 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 warranty, contract, negligence or strict liability.



Automotive Division
3M Center
St. Paul, MN 55144-1000
Phone 1-800-328-1684
Web www.3M.com/autosolutions

3M is a trademark of 3M Company Please recycle. Printed in USA. © 3M 2016. All rights reserved.