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# 3M™ Acrylic Foam Tape 5390

## Technical Data Sheet



3M™ Acrylic Foam Tape 5390 is a 2.29 mm (0.090 in) thick, gray, double-coated acrylic foam tape used in a variety of automotive applications where bonding surface contours are poorly matched and a thick foam is required.

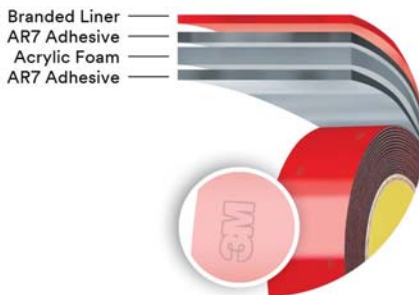
Product features of 3M AFT 5390 include:

- 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.

The acrylic foam core of 3M AFT 5390 has unique viscoelastic properties that allow it to elongate and relax when put under load, minimizing stress on the adhesive bond line. 3M AFT 5390 has AR7 adhesive on both sides of the foam for bonding to a variety of automotive surfaces. 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 5390 are the attachment of roof ditch moldings, claddings, appliques, and body side molding.

### Product Construction



### Liner Options

See the technical update [“3M™ Acrylic Foam and Acrylic Plus Tapes: Product Constructions”](#) for liner and tabbing options.

### Physical Properties

5390	
Thickness Range	2.3 mm ±0.23 mm (0.090 in ±0.009 in)
Density Range	688 kg/m <sup>3</sup> ±80 kg/m <sup>3</sup> (43 lb/ft <sup>3</sup> ±5 lb/ft <sup>3</sup> )

## 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.

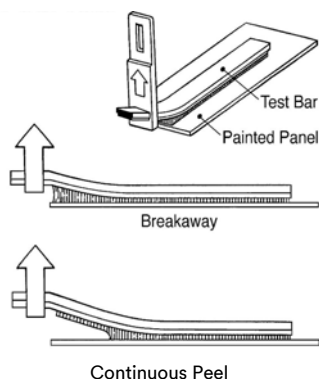
Minimum widths: 4 mm Levelwound, 5 mm Planetary (Standard versions)

Roll Width	Roll Width Tolerance	Roll Length (max)
<b>Planetary Rolls</b>		
< 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)
<b>Levelwound Rolls</b>		
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 5390 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

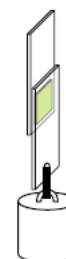


72 hrs at 22°C (72°F)	Breakaway Peel	124 N/12.7 mm	(28 lbs/.5 in)
	Continuous Peel	53 N/12.7 mm	(12 lbs/.5 in)
72 hrs at 70°C (158°F)	Breakaway Peel	156 N/12.7 mm	(35 lbs/.5 in)
	Continuous Peel	571 N/12.7 mm	(16 lbs/.5 in)
72 hrs at 38°C /100% RH (100°F/100%RH)	Breakaway Peel	111 N/12.7 mm	(25 lbs/.5 in)
	Continuous Peel	49 N/12.7 mm	(11 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](http://www.3M.com/msds).

The product is published as a material entry and is available for access on [www.mdssystem.com](http://www.mdssystem.com). For product IMDS I.D. number, email requests to [3M-IMDSrequest@mmm.com](mailto: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.

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