



# 3M™ Acrylic Foam Tape RT8000 Series

## Technical Data Sheet

### General Description

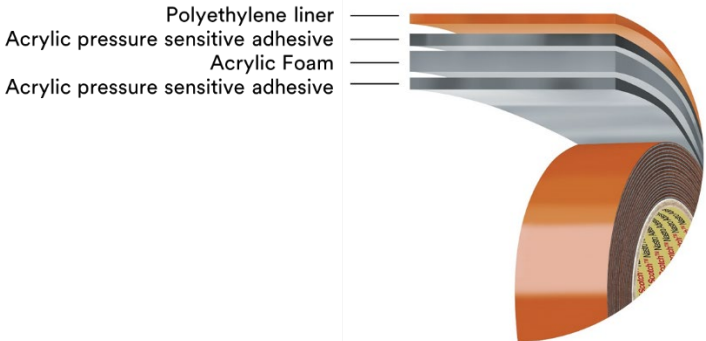
3M™ Acrylic Foam Tape RT8000 Series provides superior adhesion performance and offers high flexibility. This tape is specifically designed for the attachment of automotive exterior trim applications, including body side molding, emblem, cladding panel and spoilers.



### Product Features

- Compatibility with the TOYOTA Anti Acid Rain Paint and Scratch Resistant Paint surface:
  - Meets the TOYOTA Engineering Standard “Pressure sensitive adhesive double coated tape for exterior parts”, and has excellent initial adhesion performance and durability
  - Minimizes detachment from the paint surface due to the tapes very good stress relaxation properties
  - Has good adhesion performance and workability on conventional paint surfaces
- Follows the shrinkage and elongation of the plastic part caused by temperature changes, and has good stress relaxation properties which are very important for part attachment
- Provides very high final adhesion and peeling strength
- Excels in a variety of weather conditions, and offers solvent and high temperature resistance

### Product Construction



### Physical Properties

Properties	Core	Core Color	Thickness *	Liner	Adhesive	
RT8002	Acrylic Foam Core	Gray	0.2 mm	Translucent, orange, polyethylene liner	Acrylic pressure sensitive adhesive on both sides or core	
RT8004			0.4 mm			
RT8006			0.6 mm			
RT8008			0.8 mm			
RT8010			1.0 mm			
RT8012			1.2 mm			
RT8016			1.6 mm			
RT8020			2.0 mm			
RT8025			2.5 mm			
RT8030			White			3.0 mm
RT8035						3.5 mm
RT8040						4.0 mm

\*Liner thickness is not included

## Tabbing

An extended liner tab is recommended.

Tabbing Method and Liner Types	Tabbing Tape	Regional Availability
Heat-Bond Tabbing for Non-Silicone Coated Liners	3M™ Tabbing Tape 5081 or 5082	EMEA, Americas
	3M™ Tabbing Tape AM012	Asia
PSA Tabbing for Non-Silicone Coated Liners	3M™ Tabbing Tape 5300	Global
	3M™ Tabbing Tape AM926J, AM926JN or 4240, 4240N	Asia

## Performance Properties

3M understands that development of automotive applications is typically driven by specification requirements and performance. Each OEM has their own unique criteria, and 3M continues to develop products to meet those demands. Test reports are available upon request. Please contact your 3M application engineer for support and to obtain specific test data.

Typical performance of 3M™ Acrylic Foam Tape Series RT8000 is shown below. Peel and shear values depend on substrate characteristics and/or paint composition. These values are for reference only, and not to be used for specification purposes. For specification values please see the certificate of analysis.

Conditions/Test Parameter Definitions:

- Initial State = 23°C, 20 minutes
- Normal State = 23°C, 24 hours
- High Temperature = 23°C, 24 hours -> 80°C
- Heat-aging = 23°C, 24 hours -> 90°C, 168 hours -> 23°C, 24 hours
- Warm Water Immersion = 23°C, 24 hours -> 40°C water, 168 hours -> 23°C, 24 hours
- Gasoline Immersion = 23°C, 24 hours -> Gasoline, 60 minutes -> 23°C, 24 hours

180° Peel Adhesion to Painted Panel and Polypropylene Panel													
Tape Size: 25 mm width; Rolling Pressure: 5 kg roller one-way; Peel Speed: 50 mm/min.													
Substrate	Conditions/ Test Parameters	Typical Performance Value (N/cm)											
		RT8002 (0.2mm)	RT8004 (0.4mm)	RT8006 (0.6mm)	RT8008 (0.8mm)	RT8010 (1.0mm)	RT8012 (1.2mm)	RT8016 (1.6mm)	RT8020 (2.0mm)	RT8025 (2.5mm)	RT8030 (3.0mm)	RT8035 (3.5mm)	RT8040 (4.0mm)
Painted Panel	Initial State	6.3	8.7	10.7	12.7	13.1	13.5	14.3	15.0	16.3	17.9	19.4	20.4
	Normal State	6.9	9.2	12.1	13.8	14.5	14.7	15.9	17.7	19.9	21.6	22.7	23.2
	High Temperature	2.7	4.1	5.2	5.8	6.2	6.4	6.7	7.0	7.4	7.9	8.2	8.5
	Heat-aging	9.7	13.4	16.1	17.0	18.0	19.0	20.6	22.0	23.2	23.8	24.5	25.2
	Warm Water Immersion	10.5	15.7	19.0	21.3	22.4	22.9	23.8	24.5	25.2	25.9	26.8	27.2
Polyvinyl Chloride Panel with 3M™ Adhesion Promoter N210NT	Initial State	13.6	15.0	16.6	17.7	18.3	18.6	18.9	19.4	20.2	20.9	21.7	22.3
	Normal State	12.8	14.5	16.4	17.8	18.6	18.9	18.9	19.4	20.3	20.9	21.7	22.2
	High Temperature	5.2	6.7	8.1	8.9	9.0	9.1	9.9	10.4	10.6	10.7	10.5	10.6
	Heat-aging	5.8	11.3	13.9	15.8	16.4	17.1	17.8	18.6	18.9	19.8	20.8	23.6
	Warm Water Immersion	5.3	7.1	10.7	16.7	16.8	17.1	17.5	17.8	18.9	20.3	22.2	24.0

<b>Shear Strength</b>													
Tape Size: 25 mm x 25 mm; Rolling Pressure: 5 kg roller one-way; Tensile Speed: 50 mm/min.													
Substrate	Conditions/ Test Parameters	Typical Performance Value (MPa)											
		RT8002 (0.2mm)	RT8004 (0.4mm)	RT8006 (0.6mm)	RT8008 (0.8mm)	RT8010 (1.0mm)	RT8012 (1.2mm)	RT8016 (1.6mm)	RT8020 (2.0mm)	RT8025 (2.5mm)	RT8030 (3.0mm)	RT8035 (3.5mm)	RT8040 (4.0mm)
Painted Panel and PVC Panel	Initial State	0.92	0.87	0.79	0.65	0.61	0.57	0.46	0.41	0.36	0.34	0.32	0.32
	Normal State	0.91	0.89	0.83	0.68	0.63	0.59	0.47	0.41	0.36	0.34	0.33	0.32
	High Temperature	0.22	0.23	0.24	0.23	0.22	0.21	0.17	0.14	0.12	0.11	0.10	0.10
	Heat-aging	0.62	0.58	0.51	0.45	0.42	0.39	0.36	0.33	0.31	0.30	0.29	0.29
	Warm Water Immersion	0.89	0.90	0.80	0.75	0.71	0.66	0.56	0.50	0.46	0.44	0.42	0.41

### Shelf Life

Three years from date of manufacturing when stored in general indoor warehouse conditions, defined as approximately 4°C-38°C(40°F-100°F) and 30-70% relative humidity. The optimum storage conditions are 22°C (72°F) and 50% relative humidity.

3M Acrylic Foam Tape RT8000 Series should be stored in typical storage conditions for pressure-sensitive adhesives used within the automotive industry. During transportation, storage conditions are uncontrolled for a short period of time (a few days or weeks). This should not impact product performance. However, materials should not be stored in excess of the recommended conditions for extended periods.

### Regulatory Information

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 application engineering representative or [connect with a 3M expert](#).



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