



Acrylic Plus Tape Series EX4000

Technical Data Sheet

October 2008

Supersedes Technical Data Sheet Dated March 2008

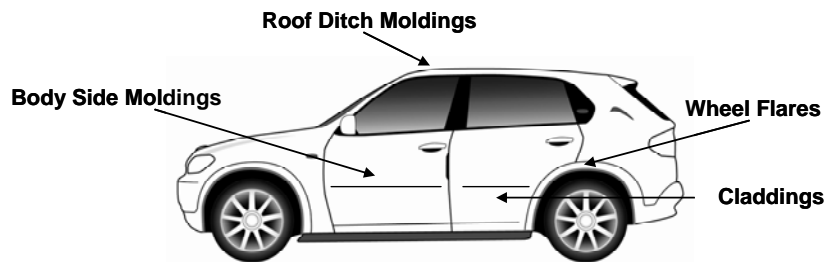
General Description 3M™ Acrylic Plus Tape Series EX4000 is a black, double-coated acrylic foam tape designed for the attachment of automotive exterior trim parts such as body side moldings and claddings. 3M Tape Series EX4000 offers an advanced adhesive system that adheres well to traditional, low surface energy, and scratch- and mar-resistant automotive paint systems.

3M Tape Series EX4000 offers the following key features:

- Excellent adhesion to traditional, low surface energy, and scratch- and mar-resistant automotive paint systems.
- Unique foam core that provides stress relaxation when high application loads are encountered, while maintaining tight bond-line aesthetics under normal conditions.
- Excellent resistance to impact in cold weather.
- Black color provides good bond-line appearance.

Some typical applications for 3M Tape Series EX4000 include body side moldings, claddings, roof ditch moldings and wheel flares.

Applications



Shelf Life

One year from date of receipt by customer when stored at 4° C - 30° C (40° F - 100° F) and 0 – 95% relative humidity. Optimum storage conditions are 22° C (72° F) and 50% relative humidity.

Product Construction

Protective Liner (see below)
 JL-2 Acrylic Adhesive
 Black Acrylic Polymer Foam
 VR-1 Acrylic Adhesive



Physical Properties

	EX4008	EX4011	EX4015
Thickness	0.76 mm (0.030 in.)	1.14 mm (0.045 in.)	1.52 mm (0.060 in.)
Range	+/- 0.10 mm (0.004 in.)	+/- 0.13 mm (0.005 in.)	+/- 0.13 mm (0.005 in.)
Density	633 kg/m ³ (39.5 lb/ft ³)	545 kg/m ³ (34 lb/ft ³)	529 kg/m ³ (33 lb/ft ³)
Range	+/- 56 kg/m ³ (3.5 lb/ft ³)	+/- 56 kg/m ³ (3.5 lb/ft ³)	+/- 56 kg/m ³ (3.5 lb/ft ³)

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Liner Options	Configuration	Heat-Bond Tab Compatibility
KL-1 (T-versions)	Red Polyethylene 1-side silicone-coated with secondary liner	Yes (3M™ Tabbng Tape 5400 or 5081)
KL-2	Red Polyethylene 2-side silicone-coated	No Contact Technical Service for options

Roll Width and Length

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

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

EX4008

Roll Width	Roll Width Tolerance	Roll Length (maximum)
< 7 mm (< 0.276 in)	+/- 0.38 mm (+/-0.015 in.)	66 meters (72 yards)
7 - 9 mm (0.276 - 0.375 in)	+/- 0.38 mm (+/-0.015 in.)	99 meters (108 yards)
10 - 18 mm (0.394 – 0.709 in)	+/- 0.38 mm (+/-0.015 in.)	132 meters (144 yards)
> 18 mm (> 0.709 in.)	+/- 0.76 mm (+/- 0.030 in.)	160 meters (175 yards)

EX4011

Roll Width	Roll Width Tolerance	Roll Length (maximum)
< 8 mm (< 0.315 in)	+/- 0.38 mm (+/-0.015 in.)	66 meters (72 yards)
8 - 9 mm (0.315 - 0.375 in)	+/- 0.38 mm (+/-0.015 in.)	99 meters (108 yards)
10 - 18 mm (0.394 – 0.709 in)	+/- 0.38 mm (+/-0.015 in.)	132 meters (144 yards)
> 18 mm (> 0.709 in.)	+/- 0.76 mm (+/- 0.030 in.)	132 meters (144 yards)

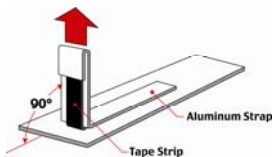
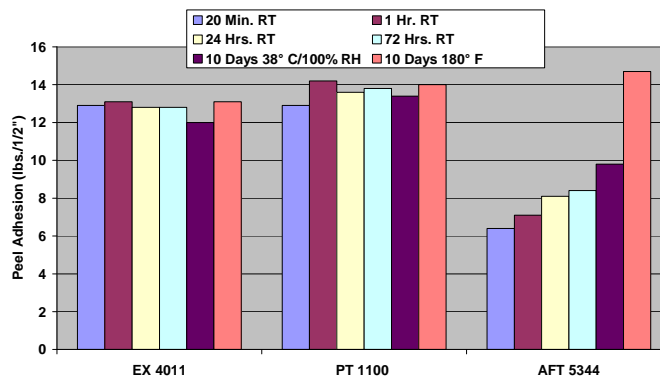
EX4015

Roll Width	Roll Width Tolerance	Roll Length (maximum)
< 10 mm (< 0.394 in)	+/- 0.38 mm (+/-0.015 in.)	66 meters (72 yards)
10 - 18 mm (0.394 – 0.709 in)	+/- 0.38 mm (+/-0.015 in.)	99 meters (108 yards)
> 18 mm (> 0.709 in.)	+/- 0.76 mm (+/- 0.030 in.)	99 meters (108 yards)

90° Peel Adhesion Testing (Typical Results)

Excellent adhesion to conventional and new low surface energy and scratch- and-mar resistant automotive paints.

Peel Adhesion on Conventional North American Automotive Paint
EX 4011, PT 1100 and AFT 5344

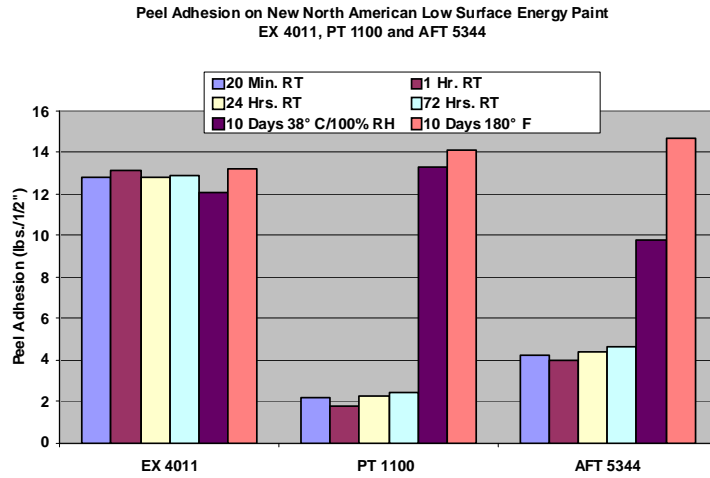


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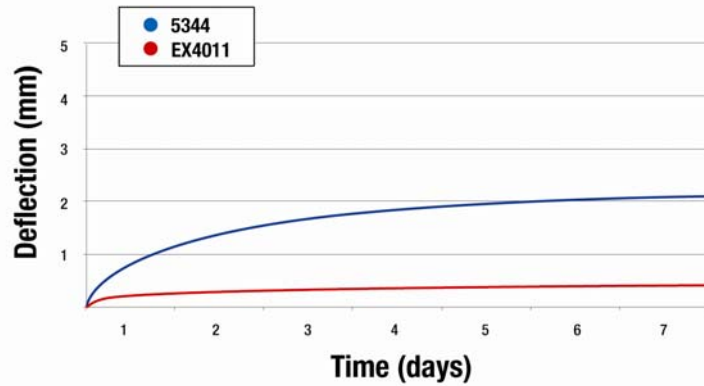
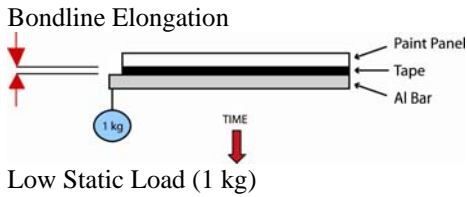
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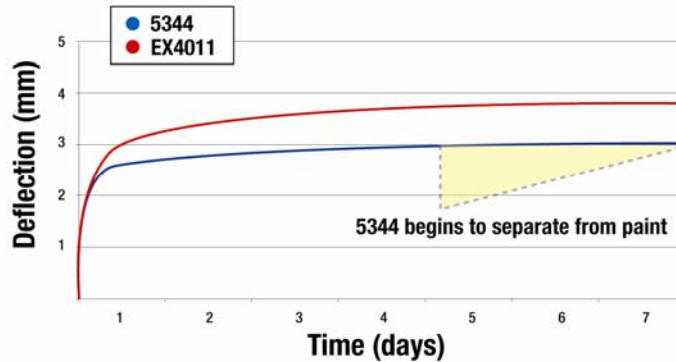
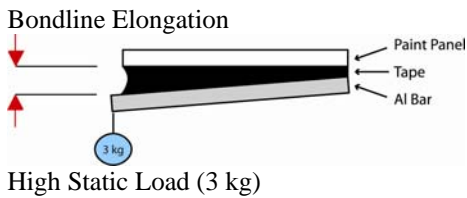
90° Peel Adhesion Testing (Typical Results) - continued



Static Break Away (Typical Results)



EX4011 demonstrates low elongation properties under low load conditions for good bondline aesthetics.



EX4011 demonstrates high elongation properties under high load conditions to relieve stress for good durability.

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Contact Information The information provided in this technical document is intended as a guide for this product. For more information, and help selecting a 3M product for an application, please contact a 3M Technical Service Representative.

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