

3M™ Conformable Bonding Tape BT3005

Technical Data Sheet

General Description

3M™ Conformable Bonding Tape BT3005 offers very good adhesion performance and high flexibility. This tape is specially designed for rough or highly irregular surfaces, providing strong adhesion for applications such as automotive wire harness assembly, and offering excellent conformability for sealing applications. 3M Conformable Bonding Tape offers a reduction in VOCs (Volatile Organic Compounds) compared to conventional products.

3M Conformable Bonding Tapes BT3005 offer the following key features:

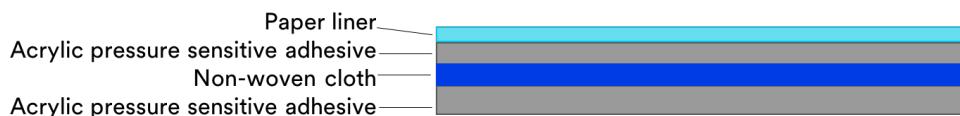
- Excellent initial adhesion and static performance on uneven substrates
- Highly conformable tape for sealing and bonding to rough or irregular surfaces
- Demonstrates good visibility due to its light blue color
- Excellent adhesion performance with weather resistance, heat resistance, and chemical resistance
- Can be applied to various substrates used for automotive parts without special surface treatment*



Typical applications for 3M Conformable Bonding Tapes BT3005 include sealing or bonding support for various interior or exterior part attachments and fixing wire harnesses to the headliner.

*Note: Depending on the material (e.g., EPDM rubber), 3M™ Adhesion Promoter may be required. Please check before use.

Product Construction



Physical Properties

Property	BT3005
Thickness*	0.5 mm
Color	Light blue
Liner	Paper
Adhesive	Acrylic pressure sensitive adhesive

*Liner thickness is not included

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 Conformable Bonding Tapes (CBT) BT3005 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:

- Immediate: 23 deg. C x 5 min.
- Initial State = 23°C, 20 mins
- Normal State = 23°C, 24 hours
- High Temperature = 23°C, 24 hours -> 80°C
- Heat-aging = 23°C, 24 hours -> 80°C, 336 hours -> 23°C, 24 hours
- Humidity-aging = 23°C, 24 hours -> 50°C 95%Rh, 336h -> 23°C, 24 hours

180° Peel Adhesion Non-Liner Side Adhesive to Headliner, Painted Panel and Polypropylene (PP) Substrate

Tape Size: 10 mm width; Tape backing: 50 µm PET film; Rolling Pressure: 2 kg roller one way; Peel Speed: 50 mm/min.

Substrate	Conditions/Test Parameters	BT3005 Typical Performance Value (N/cm)
Headliner A (Non-woven cloth surface)	Immediate	2.8
	Initial state	3.5
	Normal state	3.5
	At high temperature	1.4
	Heat aging	4.1
	Humidity aging	4.1
Headliner A (Non-woven cloth surface)	Immediate	3.9
	Initial state	4.6
	Normal state	5.1
	At high temperature	2.6
	Heat aging	12.6
	Humidity aging	9.7
Painted Panel (white colored painted panel used on vehicle)	Immediate	8.2
	Initial state	10.9
	Normal state	11.2
	At high temperature	5.8
	Heat aging	14.2
	Humidity aging	13.9
Polypropylene	Immediate	6.6
	Initial state	7.1
	Normal state	7
	At high temperature	1.5
	Heat aging	6.3
	Humidity aging	7.8

Note: The adhesive performance on liner side is lower than these values. Underline: headlining surface cloth break.

Shelf Life

Three years (36 months) from date of manufacture when stored at recommended storage condition 23°C and 50% relative humidity.

Regulatory Information

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

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