



Automotive

Technical Data Sheet

3M™ Acrylic Foam Tape

5605

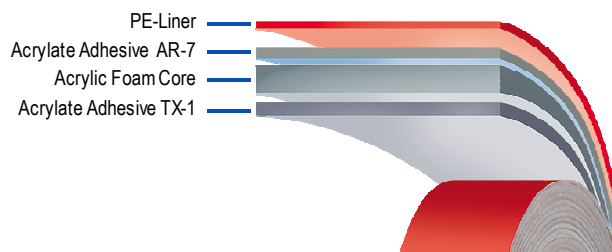
Description

5605 is a 3M™ Acrylic Foam Tape with light grey foamed acrylic adhesive and additional acrylate adhesive on both sides.

Typical applications are attachments of add-on-parts with low energy plastic surfaces which are applied in exterior areas of the car.

5605 demonstrates good adhesion to many automotive surfaces (PP, PMMA, Powder Coatings) without additional pre-treatment, good inner strength, excellent long term stability as well as a very good adaptability to the areas adhered to. Based on the unique viscoelastic property of the 5605, stress is relaxed in the adhesive bond line so that a durable bond is formed.

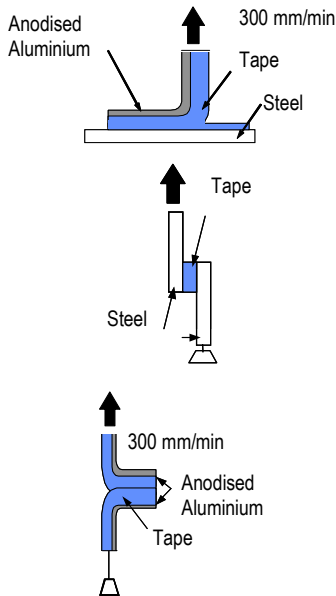
Construction



General Properties		
Core	Viscoelastic Acrylic Foam, density (670 kg/m ³)	
Colour	Light grey	
Thickness (without liner)	1.14 mm + / - 0.1 mm	
Tolerance of width	+ / - 0.4 mm	
Liner	F – red brown, one side siliconized polyethylene foil	
Adhesive to paint or plastic (liner side)	AR-7 acrylate adhesive with high initial and final tack to paints and ABS	
Adhesive to add-on part (non-liner side)	TX-1 acrylate adhesive with good tack to surfaces with low surface energy	
Mass per unit area (approx.)	Type	5605
	Tape	0.79 kg/m ²
	Liner	0.10 kg/m ²
Shelf life	Following shelf life when stored in unopened original cartons at +4°C to +38°C and 0 - 95 % relative humidity is considered from date of delivery: - Products with non -siliconized polyethylene liner 24 months - Products with siliconized polyethylene- and paper liner 12 months Level wound rolls must be stored under lay flat conditions.	
Heat resistance	- 40°C to + 90°C, short term 120°C (both values are load-dependent)	
Splices	Number of splices depends on order quantity and roll-length. Level wound rolls have 3 to 4 splices in average. Smaller order quantities (smaller than one jumbo) rolls could contain to 14 splices.	
IMDS Nr.	http://www.mdsystem.de	

Performance Properties (Typical Values)

Performance tests are run using standard test procedures. The values presented are typical values not to be used for specification purposes.



Test	Results	
90° peel adhesion on polished steel 3M TMG 1637 20 minutes at RT 72 hours at RT	AR-7 side: 40 N/cm 40 N/cm	TX-1 side: 38 N/cm 40 N/cm
90° peel adhesion on polypropylene (Hifax SP179) 3M TMG 1637 20 minutes at RT 72 hours at RT	AR-7 side: 3 N/cm 4 N/cm	TX-1 side: 20 N/cm 38 N/cm
Static Shear Adhesion 3M TMG 1266 The static shear test is carried out with bonded area of 25.4 mm by 12.7 mm wide tape. 6.8 kg roll-down against polished steel	Exceeds more than 10,000 minutes at 70°C Weight: 250 grams	
Alu T- Peel 3M TMG 1636	22 N/cm	

Characteristics of Acrylic Foam Tape

The Acrylic Foam Tape is manufactured using a special 3M process of producing a homogeneous system of high performance acrylic adhesive.

The product can be used for numerous applications both on the exterior and interior of vehicles. The unique viscoelastic nature of acrylic foam gives it a high cohesive strength combined with excellent shock and weathering resistance.

Generally the adhesion increases with time, resulting in a durable, high performance bond between the part and the substrate. To optimize bond strength, the surfaces must be clean, dry and smooth with good fit between part and substrate. Decisive for good adhesion performance is full surface contact between tape and substrate.

Contact is achieved by pressurisation. In practice a pressure between 10 and 50 N/cm² is usually needed and an application temperature between 18 to 40 °C is also necessary.

During application, add-on parts and tapes must have the same temperature.

Additional Information

This data sheet contains specific information about the product. General characteristics and application rules of acrylic foam tapes are available separately.

Important notice

All statements, technical information and recommendations herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Please ensure before using our product that it is suitable for your intended use.



3M Deutschland GmbH
Automotive Laboratory
 Carl-Schurz-Strasse-1
 D-41453 Neuss
 Tel. (+49)-2131-14-3580
 Fax: (+49)-2131-14-12-3580

5605_E_07/br
 Issue date: 10/2012
 Revision: 07
 page 2 of 2



All questions of liability relating to this product are governed by the Terms of Sale subject, where applicable, to the prevailing law.

