



Automotive

Technical Data Sheet

3M™ Acrylic Foam Tape

GTE6112

Description

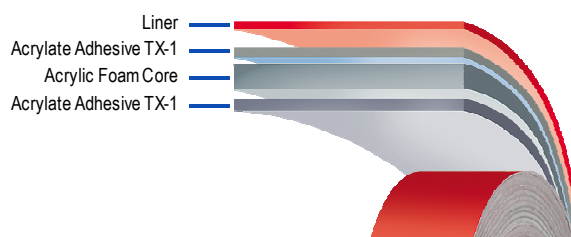
GTE6112 is a grey 3M™ Acrylic Foam Tape laminated on both tape sides with a special adhesive for low energy substrates.

The tape is used to attach polypropylene parts to polypropylene surfaces like body side mouldings or bumpers without any priming or pre-treatment.

A typical application is the attachment of park sensors, washer devices or other interior trim parts e.g. electronic devices.

GTE6112 is characterised by very high peel adhesion to low energy surfaces, high internal strength, excellent long term durability as well as very high conformability to the bonded substrates. A special property of the tape is the relaxation capability of stress, which makes the bond very durable.

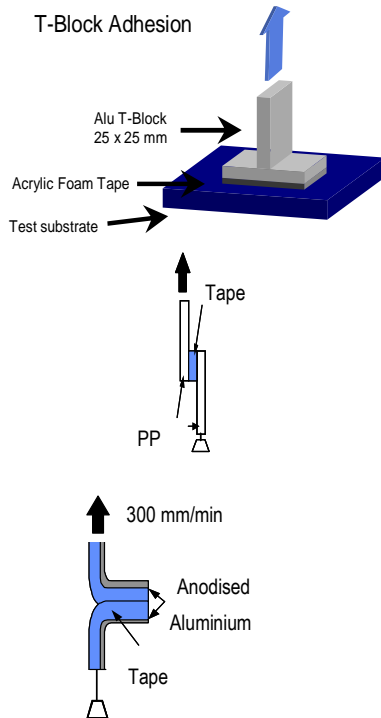
Construction



General Properties			
Core	Viscoelastic Acrylic Foam, density (700 kg/m ³)		
Colour	Grey		
Thickness	1.1 mm + / - 0.15 mm		
Width tolerance	+ / - 0.4 mm		
Liner	F - red polyethylene foil, both sides siliconized P - white paper liner, both sides siliconized		
TX-1 adhesive on both sides	TX-1 acrylate adhesive with high initial tack and high ultimate bond strength to low energy surfaces like e.g. PP, PMMA , powder paints etc.		
Mass per unit area (approx.)	Type	GTE 6112 F	GTE 6112 P
	Tape	0.82 kg/m ²	0.82 kg/m ²
	Liner	0.11 kg/m ²	0.09 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 up 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	Result
T-Block Adhesion to PP/EPDM 3M TM 1720 Separation speed 50 mm/ min. 20 minutes at RT 72 hours at RT 10 days cycle test	41 N/cm ² 52 N/cm ² 49 N/cm ² (cohesive break)
Static Shear on Polypropylene 3M TMG 1266 The static shear test is carried out with a bonded area of 25.4 mm by 12.7 mm wide tape.	Exceeds more than 10.000 min at 70°C Weight: 250 g
Static Shear on Stainless Steel 3M TMG 1266 The static shear test is carried out with a bonded area of 25.4 mm by 12.7 mm wide tape.	Exceeds more than 10.000 min at 70°C Weight: 500 g
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.

Acrylic Foam Tapes are specially designed for many automotive components and automotive paint systems. They are applied for years in the automotive industry in Japan, USA and Europe and have established in field trials.

Additional Information

This data sheet contains specific information about the product. General characteristics and application information 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.

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

