



Automotive Technical Data Sheet

3M™ Acrylic Plus Tape

EX4008

Description

EX4008 is a 3M™ Acrylic Plus Tape consisting of black foamed acrylic adhesive with additional acrylic adhesive on both sides for automotive surfaces like powder coatings and nano particle based clear coatings.

Typical applications are attachments of rigid add-on-parts such as stone chip moldings, fender moldings or wheel arch extensions.

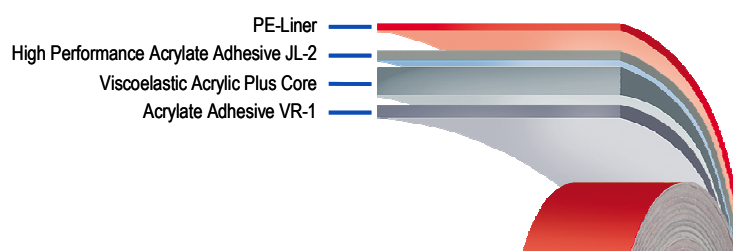
EX4008 demonstrates a very good adhesion to modern surfaces for automotive which are difficult to adhere.

One tape side is covered with a special, high performance adhesive for automotive paint systems, the acrylic adhesive offers good adhesion to low-energy-surface substrates without additional primer treatment.

The foam core gives good wet out properties and adaption to complex geometries.

Additional EX4008 offers good internal strength and good long term stability.

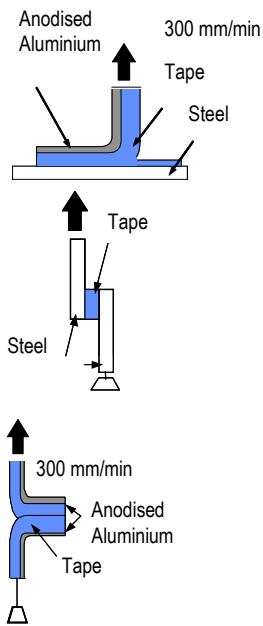
Construction



General Properties			
Core	Acrylic Plus Foam, density (633 kg/m ³)		
Colour	black		
Thickness (without liner)	0.76 mm + / - 0.1 mm		
Width Tolerance	+ / - 0.4mm		
Liner	F - Red polyethylene foil, both sides siliconized T - Version with one side siliconized red polyethylene foil, good for tabbing tape bonding and additional, one side siliconized transparent polyethylene liner, to be removed before application. This liner is available for die-cuts , level wound rolls and planetary rolls from 100 mm width upwards.		
Adhesive to add-on part (non-liner side)	Acrylic adhesive VR-1		
Adhesive to paint or plastic (liner side)	JL-2 high performance acrylic adhesive with high initial and final tack for advanced automotive coating systems and low energy surfaces		
Mass per unit area (approx.)	Type	EX 4008 F	EX 4008 T
	Tape	0.48 kg/m ²	0.48 kg/m ²
	Liner	0.11 kg/m ²	0.16 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.mdssystem.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	
90 ° peel adhesion on polished steel 3M TMG 1637 20 minutes at RT 72 hours at RT	JL-2 side: 40 N/cm 41 N/cm	VR-1 side: 40 N/cm 40 N/cm
90° peel adhesion on 1c clear coat 3M TMG 1637 20 minutes at RT 72 hours at RT	JL-2 side: 40 N/cm 39 N/cm	VR-1 side: 41 N/cm 39 N/cm
Static Shear Adhesion 3M TMG 1266 The static shear test is carried out with a bonded area of 25.4 mm by 12.7 mm wide tape. 6.8 kg roll-down against polished steel	JL-2 side: > 10000 min on steel > 10000 min on 2c clear coat VR-1 side: > 10000 min on steel > 10000 min on 2c clear coat	
Alu T- Peel 3M TMG 1636	22 N/cm	

Characteristics of Acrylic Plus Tape

The Acrylic Foam Tape is manufactured using a special process of producing a homogeneous system of high performance acrylic adhesive for new paint systems.

The product can be used for numerous applications on the exterior vehicles and can balance large part deviations. Further it is suitable for modern and robot based applications.

The unique viscoelastic nature of acrylic foam gives it a high cohesive strength, combined with excellent shock and weathering resistance. 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 pressurization. In practice a pressure between 10 - 50 N/cm² is usually needed and an application temperature between 18 - 40 °C is also necessary. During application, add-on parts and tapes must have the same temperature.

If you bond to substrates which contain plasticizer, like EPDM, PVC, please check plasticizer-resistance of each individual application to ensure that tape is suitable for this application.

Additional Information

This data sheet describes specific product attributes.

General and detailed guidelines for usage of Acrylic Plus tapes can be obtained.

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.

