

tesa® ACX^{plus} Automotive Attachment Part Mounting – The latest in bonding technology

Tape technology for the automotive industry
APPLICATION FOLDER





Attachment Part Mounting with tesa® ACX^{plus} Black Line for the automotive industry

Attachment parts like emblems, body side moldings, and roof ditch trims need to be securely mounted to exterior car body surfaces, and the bond has to withstand all external influences throughout the vehicle lifetime.

Features and benefits of using tesa® ACX^{plus} Black Line

The tesa® ACX^{plus} Black Line Tapes securely mount attachment parts to the car body and at the same time provide reliable sealing and vibration damping. The unique tapes also compensate for thermal expansions and ensure excellent stress dissipation. The products are deep black, and their high level of conformability allows for application in curves and corners.

The tesa® ACX^{plus} Black Line assortment also includes adhesion promoters, dispensers, tabbing solutions and die cuts to enhance process efficiency in many ways:

- Fast mounting process
- Small thickness tolerances for efficient converting processes
- Corrosion caused by drill holes during mechanical fastening is eliminated by using tesa® ACX^{plus} Black Line Tapes instead

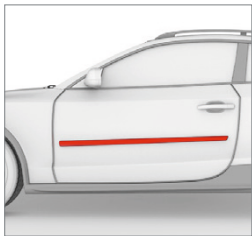


Secure mounting of Automotive attachment parts with the latest in bonding technology.

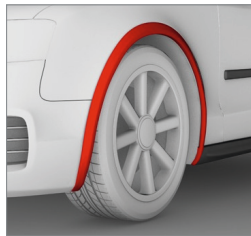
tesa® Automotive Attachment Part Mounting with tesa® ACX^{plus} Black Line

Constructive bonding of attachment parts to car bodies can be very challenging. Dissimilar materials such as glass, metal, and plastics need to be bonded and traditional mechanical fasteners like rivets, welds, or screws may not be suitable or can even damage these materials. Adhesive tapes join materials gently and permanently.

tesa® ACX^{plus} is a new category of double-sided tapes for constructive bonding and is the highest performing product line made by tesa. tesa® ACX^{plus} Black Line was especially developed for applications in the automotive industry to securely bond exterior attachment parts to the car body.



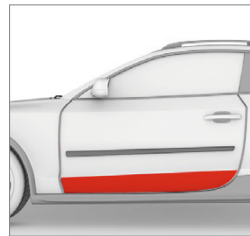
Body Side Molding



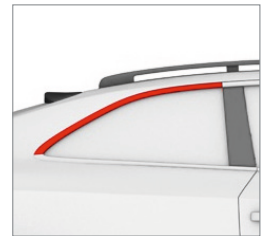
Fender Flare



Rocker Panel



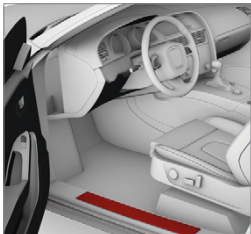
Door Edge Molding



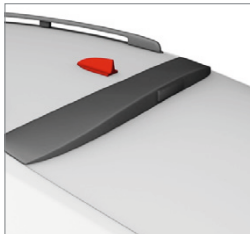
Window Frame



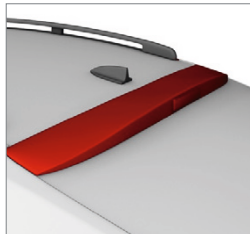
Pillar Appliqué



Door Sill Trim



Shark Fin Antenna



Brake Light Spoiler



Roof Ditch Trim



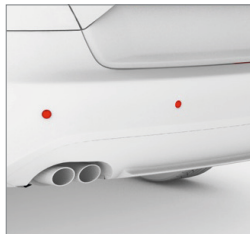
Roof Rail



Trunk Molding



Emblem



Park Distance Sensor

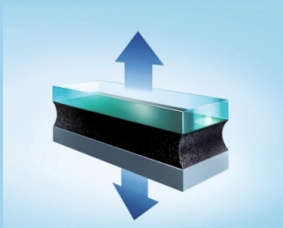


Headlight Washer

**tesa® ACX^{plus} Black Line
Product Features**

Application Details

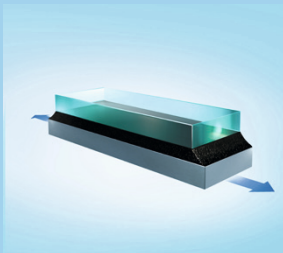
Bonding Power



tesa® ACX^{plus} creates a powerful bond even between materials with different surface characteristics, such as automotive attachment parts and clear coats. The product performance characteristics ensure:

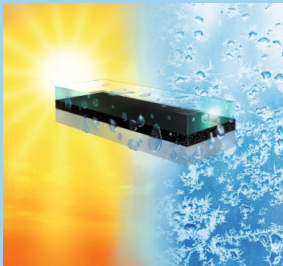
- Reliable mounting of parts even after short dwelling time
- Securing of the parts edges against lifting
- Very high reliability throughout the vehicle lifetime
- Uniform 'wetting' onto clear coat and other vehicle parts
- Design flexibility with limited bonding area

Stress Dissipation



During the lifetime of a vehicle, static and dynamic stresses act upon the constructive bond between the car body and the attachment part. These can be caused by different thermal elongations of the respective substrates. Due to the viscoelastic behavior of tesa® ACX^{plus} the arising stresses can be optimally dissipated and a secure bond is assured even during extreme temperature changes.

Temperature and Weather Resistance



The reliable constructive bonds of tesa® ACX^{plus} resist extreme temperatures and temperature changes, different weather conditions, UV radiation, and also chemical influences. tesa® ACX^{plus} also safely seals all bonding areas against humidity penetration.

Deep Black Color



When mounting automotive attachment parts with self-adhesive tapes, the tape will at best not be visible after the part is attached to the car body. This enhances the overall appearance and therefore customer satisfaction. The deep black color of tesa® ACX^{plus} Black Line ensures minimum visibility between the attachment part and the car body and an appealing car design is supported.

Unique Conformability



Due to the high conformability, tesa® ACX^{plus} is applicable in curves and corners without lifting of the liner. In addition, minor surface irregularities of the parts bonded together can be compensated for, so that a maximum adhesion surface is achieved for a long-lasting bond.

tesa® ACX^{plus} Black Line

	Thickness of Tape [µm]	Adhesive	Color	Backing	90° Peel Adhesion				DSR** on Clear Coat* 1 day [N/cm ²]
					Steel 3 days [N/cm]	Clear Coat* initial [N/cm]	Clear Coat* 3 days [N/cm]	Clear Coat* 100% Humidity 7 days [N/cm]	
tesa® 6808	800	tackified acrylic	deep black	foamed acrylic	30	15	25	30	115
tesa® 6812	1200	tackified acrylic	deep black	foamed acrylic	40	17	30	35	110
tesa® 6815	1500	tackified acrylic	deep black	foamed acrylic	45	20	35	40	100

* tesa standard clear coat ** Dynamic Shear Resistance

tesa® ACX^{plus} Black Line – Liner Versions

	Thickness [µm]	Material	Color	Tensile Strength [N/cm]	Elongation at Break [%]
PV20	133	silicone free HDPE film	light blue	>30	>600
PV24	100	siliconized HDPE film	royal blue	>10	>300
PV25	122	PE-coated paper	white	>73	>2.5

tesa® Adhesion Promoter

	Surface	Drying Time	UV Traceability	Tape Application Time	Toluene Content
tesa® 60150	PP/EPDM, PP, TPO	min. 30 seconds*	yes	several days**	none
tesa® 60151	glass	min. 30 seconds*	no	5 minutes	none
tesa® 60152	PU, PVC	min. 2 minutes*	yes	several days**	none

* solvent has to be flashed off ** surface has to stay free of dust

tesa® Tabbing Tape

	Thickness of Tape [µm]	Adhesive	Color	Backing	Elongation at Break [%]
tesa® 54999	150	silicone	green, translucent	PET	>75

tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All information and recommendations are provided to the best of our knowledge on the basis of our practical experience. Nevertheless tesa SE can make no warranties, expressed or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. Therefore, the user is responsible for determining whether the tesa® product is fit for a particular purpose and suitable for the user's method of application. If you are in any doubt, our technical support staff will be glad to advise you.

Complete package for Attachment Part Mounting

tesa® ACX^{plus} Black Line helps customers to optimize self-adhesive bonding and application processes. tesa Automotive offers worldwide support including laboratory testing and expert advice regarding application and dispensing tools, as well as die cut solutions, a tabbing tape solution, and an assortment of aligned adhesion promoters.





tesa Automotive: from tradition, passion and conviction

For the past 75 years tesa Automotive has been a constant generator of ideas and a reliable partner to automobile manufacturers and their suppliers. tesa's high-performance self-adhesive tape solutions and pioneering inventions impress customers worldwide. tesa Automotive is working on the future of adhesive tape technology, a key technology of the 21st century, with enthusiasm.



NEW: the tesa® ACX technology

Time and again tesa has been able to set milestones in adhesive tape technology. tesa® ACX is a new, future-oriented technology, specially developed by tesa for constructive bonding. This development will open up a new dimension of possibilities for automobile manufacturers and suppliers in the future. tesa Automotive is equipped to collaboratively find new ideas for constructive bonding applications.



The tesa management system is certified according to the standards ISO 9001, ISO/TS 16949 and ISO 14001. All tesa® products delivered to automotive customers are listed in the International Material Data System (IMDS).

HEADQUARTERS

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