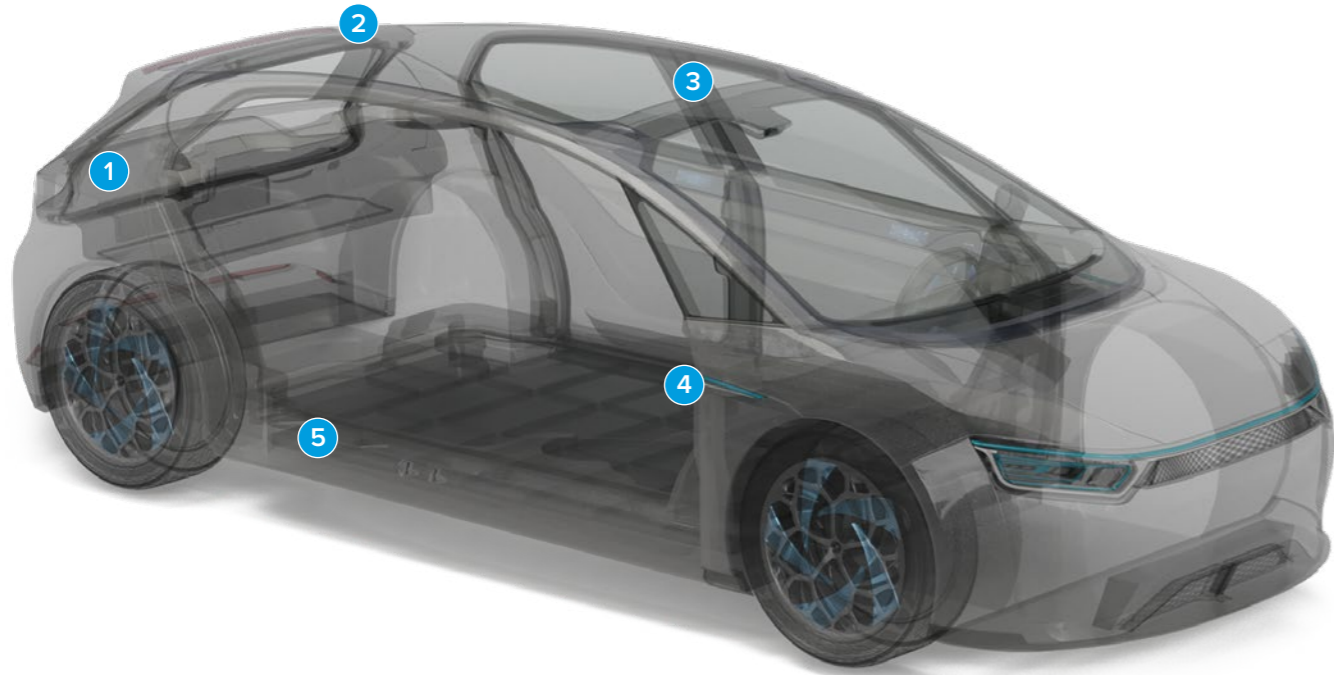


A close-up photograph of a person's hand operating a blue-handled tesa ACXplus attachment part mounting tool. The tool is being used to apply a blue adhesive tape to a metallic car body part. The background is a blurred industrial setting with bright lights.

tesa® ACX^{plus} for
exterior applications

Our attachment part mounting solutions
for the automotive industry



- 1 Emblem
 - 2 Shark fin antenna
 - 3 Pillar appliqué
 - 4 Body side molding
 - 5 Rocker panel
- ... and many more



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's lifetime.

Acrylic foam tapes for constructive bonding

Attachment part mounting with tesa® ACX^{plus} for the automotive industry

Constructive bonding of attachment parts to car bodies can be very challenging as traditional mechanical fasteners like rivets, welds, and screws may not be suitable for dissimilar materials such as glass, metal, and plastics. Adhesive tapes permanently and gently join materials without causing damage.

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



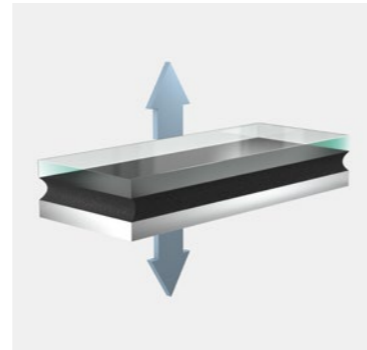
Features and benefits of using tesa® ACX^{plus}

The tesa® ACX^{plus} 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 expansion and ensure excellent stress dissipation. Their high level of adaptability allows perfect attachment to the car body's curves and corners.

Bonding power

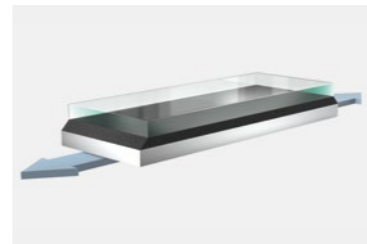
tesa® ACX^{plus} creates a powerful bond even between materials with different surface characteristics, such as automotive attachment parts and clear coats. Our product performance characteristics ensure:

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



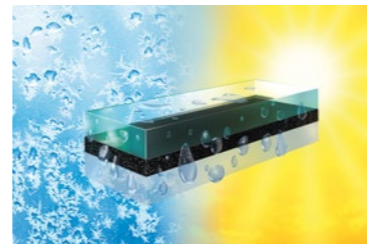
Stress dissipation

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 elongation of the respective substrates. Due to the viscoelastic behavior of tesa® ACX^{plus}, the 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} are resistant to extreme temperatures and temperature changes, different weather conditions, UV radiation, and also chemical influences.



Deep black color

When mounting automotive attachment parts with self-adhesive tapes, the tape will, at best, not be visible after the part has been attached to the car body. This enhances the overall appearance and, therefore, customer satisfaction. The deep black color of tesa® ACX^{plus} Black Line 78XX series ensures minimum visibility between the attachment part and the car body, thus contributing to an appealing car design.



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.



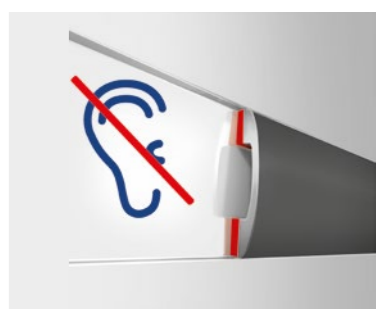
Water sealing

tesa® ACX^{plus} creates a permanent sealing that is impermeable to water and other solvents such as washer fluids. This ensures an excellent humidity sealing and prevents corrosion throughout the lifetime of the vehicle.



Noise prevention

The strong, closed-cell foam construction of tesa® ACX^{plus} combined with its high bonding power significantly dampens vibrations and reduces unwanted sounds.

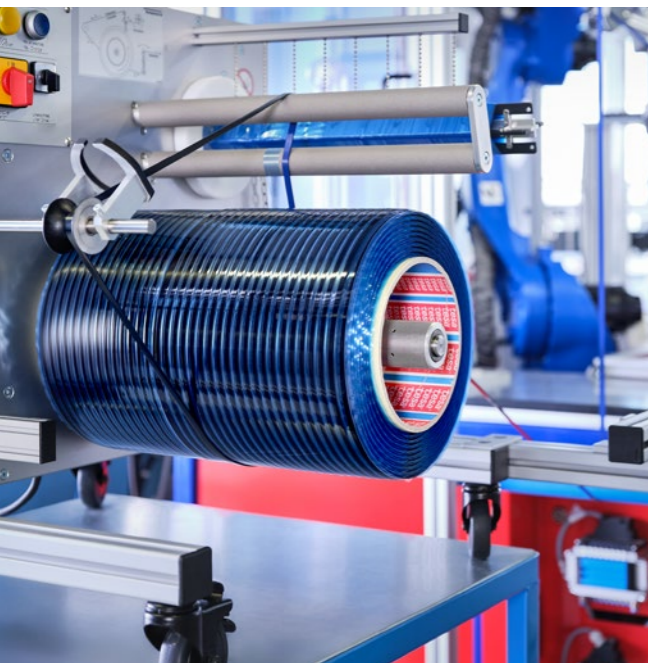


Complete package

ACX^{plus} assortment

	Thickness	Adhesive	Color	Backing	90° peel adhesion ¹					Dynamic shear resistance ¹		Temperature resistance ⁵	
					ASTM Steel	ABS	PP/EPDM no pre-treatment	MSE clearcoat (polar) ²	LSE clearcoat (unpolar) ³	PP/EPDM and MSE clearcoat ⁴	Short term (15 min.)	Long term (3 month)	
					Measured on open side			Measured on covered side					
tesa® 77212	1.200 µm	Pure acrylic	Gray	Soft acrylic foam	32 N/cm*	12 N/cm*	2 N/cm*	31 N/cm*	27 N/cm*	79 N/cm*	38 N/cm**	120°C	80°C
tesa® 7811	1.100 µm	Modified acrylic	Deep black	Foamed acrylic	33 N/cm*	35 N/cm*	13 N/cm*	28 N/cm*	32 N/cm*	69 N/cm*	19 N/cm**	120°C	80°C
tesa® 77112	1.200 µm	Modified acrylic	Black	Soft acrylic foam	30 N/cm*	25 N/cm*	3 N/cm*	30 N/cm*	27 N/cm*	81 N/cm*	35 N/cm**	120°C	90°C
tesa® 77311	1.100 µm	Modified acrylic	Gray	Soft acrylic foam	30 N/cm*	48 N/cm*	1 N/cm*	30 N/cm*	40 N/cm*	85 N/cm*	25 N/cm**	120°C	90°C
tesa® 77611	1.100 µm	LSE adhesive on covered side	Gray	Soft acrylic foam	41 N/cm*	12 N/cm*	4 N/cm*	36 N/cm*	44 N/cm*	84 N/cm*	20 N/cm**	120°C	80°C
tesa® 77711	1.100 µm	LSE adhesive on open side	Gray	Soft acrylic foam	33 N/cm*	36 N/cm*	40 N/cm*	32 N/cm*	30 N/cm*	68 N/cm*	27 N/cm**	120°C	80°C
tesa® 77811	1.100 µm	LSE adhesive	Gray	Soft acrylic foam	35 N/cm*	31 N/cm*	40 N/cm*	39 N/cm*	45 N/cm*	71 N/cm*	24 N/cm**	120°C	80°C

¹ 72 hrs | ² MSE = medium surface energy | ³ LSE = low surface energy | ⁴ Pre-treatment of PP/EPDM side except for 77811/77711/79011
⁵ Static shear tests. Displayed values are target values, values can differ by customer substrates, load and test method.
 * RT | ** 80°C



Liner assortment

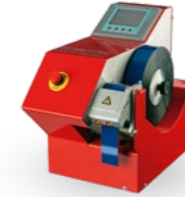
	Available on	Thickness [µm]	Material	Color	Tensile strength [N/cm]	Elongation at break [%]
tesa® PV04	77204	140	PE-coated paper	White	> 75	< 3
tesa® PV15	773XX/776XX/ 777XX/778XX	100	PE filmic	Royal blue	> 27	> 1000
tesa® PV25	78XX	122	PE-coated paper	White	> 73	> 2,5
tesa® PV26	771XX	160	PE-coated paper	White	> 73	> 2,5
tesa® PV28	771XX	130	Silicon free HDPE film	Royal blue	> 10	> 300
tesa® PV29	78XX/745XX	130	Heat sealable and adhesive tabable film	Royal blue	> 30	> 300
tesa® PV31	772XX (except for 77204)	110	PE filmic	White	> 20	> 800
tesa® PV34	77204/77208	80	PE filmic	White	> 15	> 800

We offer an entire assortment:

tesa® ACX^{plus} helps customers to optimize self-adhesive bonding and application processes. We offer worldwide support including laboratory testing and expert advice regarding application and dispensing tools.



Die cuts



Desk dispenser



Application tools



Masking jig



Pool dispenser

Adhesion promoters

	Surface	Drying	UV traceability	Application time	Toluene content
tesa® 60151	Glass	Min. 30 sec.**	No	5 min	None
tesa® 60153	PP/EPM	Min. 30 sec.**	Yes	Several days***	None

** Solvent has to be flashed off
 *** Surface has to stay free of dust

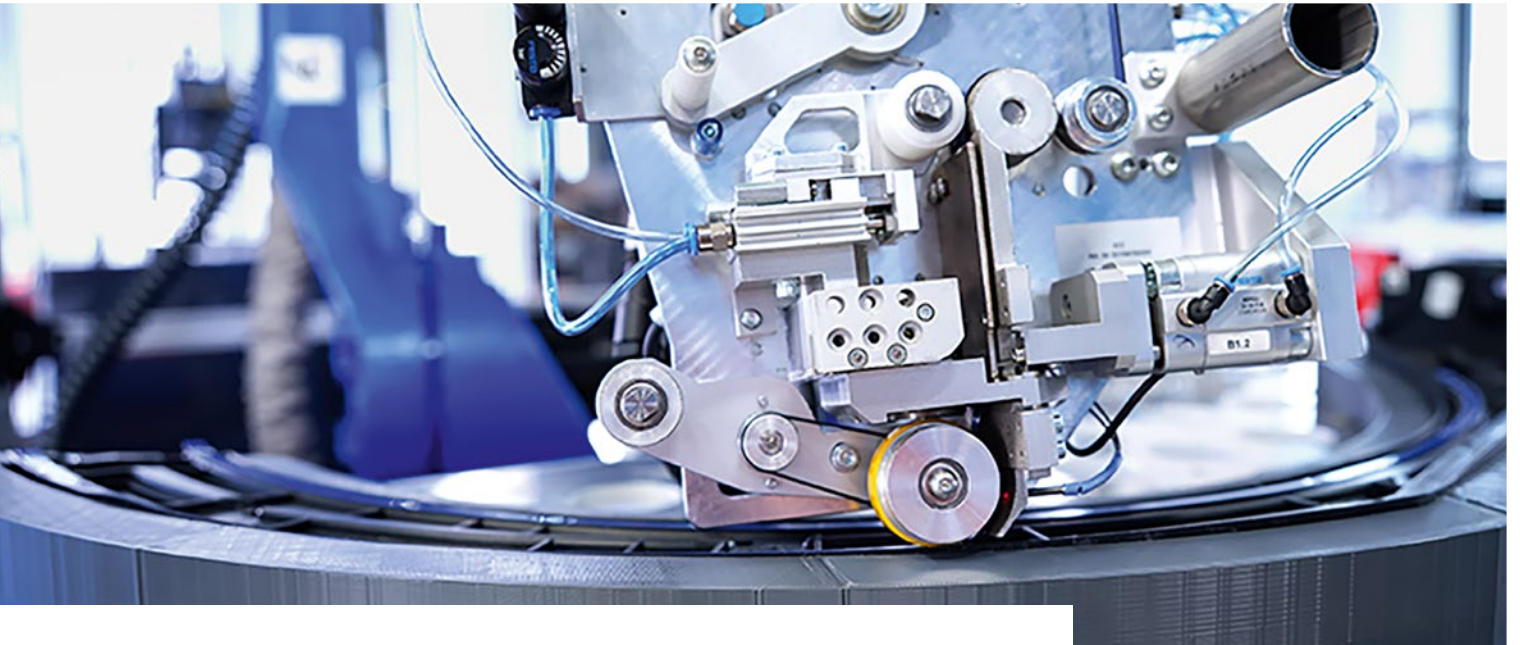


Tabbing tapes

	Suitable for product	Thickness [µm]	Adhesive	Backing	Color	Tensile strength [N/cm]	Elongation at break [%]
Adhesive tabbing							
tesa® 50099	78XX PV29 778XX PV15 772XX PV31	150	Silicone	PET	Green	> 100	> 75
tesa® 50988	78XX PV29 771XX PV28 745XX PV29	200	Synthetic rubber	PET	Trans-parent	> 100	> 75
tesa® 50699	773XX PV15 776XX PV15 777XX PV15 (778XX PV15) (772XX PV31/ PV34) (78XX PV29)	130	Silicone	PET	Green	> 100	> 80
Heat tabbing							
tesa® 50999	78XX PV29 771XX PV28 745XX PV28 745XX PV29	150	LDPE	PET	Trans-lucent	> 40	> 75



tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data above mentioned are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average values and are not appropriate for a specification. Therefore tesa SE can make no warranties, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. 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 support you.



Certifications

Our company is focused on international quality, environmental, and occupational safety standards.

Please find more information regarding our certifications at:
www.tesa.com/certifications



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