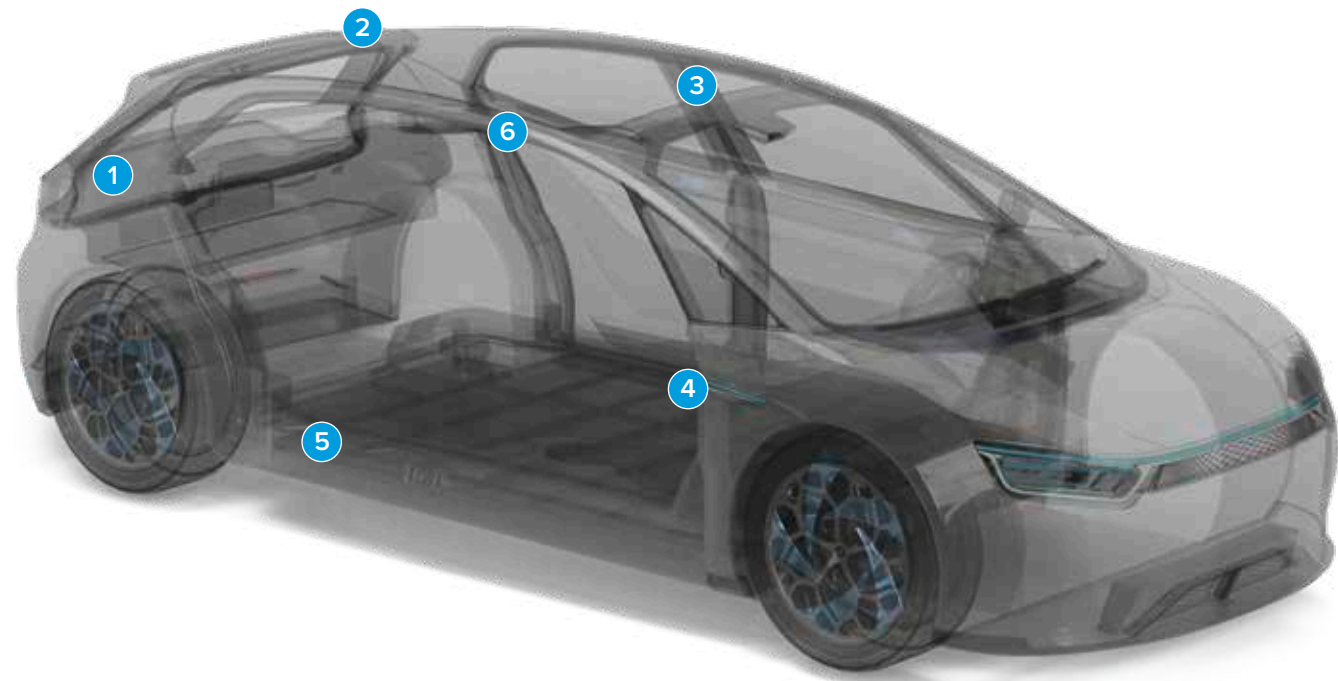


A close-up photograph of a person's hand operating a tesa ACXplus machine. The machine is a large industrial device with a blue handle and a large roll of blue tape. The person is using the handle to adjust the machine, which is positioned over a long, narrow metal tray. The background is a blurred industrial setting with various pieces of equipment and 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
- 6 Sealing applications

... and many more

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.



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.



Rear spoiler



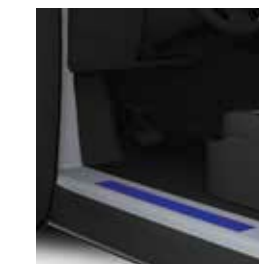
Body side molding



Brake light



Door edge molding



Doorsill trim



Emblem



Fender flare



Headlight washer



Park distance sensor



Pillar appliqué



Rocker panel



Roof ditch trim



Shark fin antenna



Trunk molding



Window frame

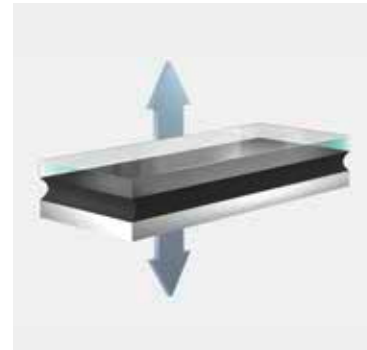
Features and benefits of using tesa® ACX^{plus}

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

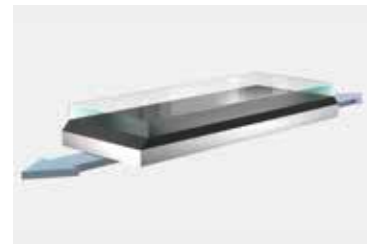
tesa® ACX^{plus} creates a powerful bond even between materials with different surface characteristics, such as automotive attachment parts and clear coats. Our product performance characteristics ensure:

- 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.



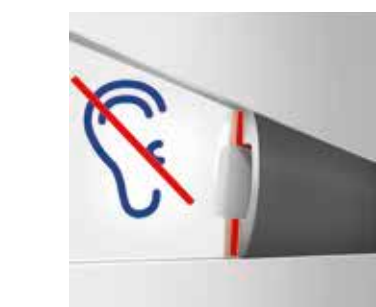
Water sealing

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

Part type	Small (e.g. emblems)		Mid to large (pre treatment LSE)		Mid to large		Large & more demanding	Plastic to plastic	
	Product	tesa® 772XX	tesa® 78XX	tesa® 776XX	tesa® 777XX Primerless	tesa® 778XX Primerless	tesa® 790XX Primerless	tesa® 79XXX Plastic to plastic	
Construction	Single layer		Two layers	Two layers	Two layers			Three layers	
Color	Gray	Black	Gray						
Backing	Soft acrylic foam	Foamed acrylic	Soft acrylic foam	Soft acrylic foam	Soft acrylic foam	Special acrylic foam	Special acrylic foam		
Adhesive	Closed side	-	-	LSE A	-	LSE A	CC 2	LSE B	
	Open side	-	-	-	LSE A	LSE A	LSE B	LSE B	
Special features	High cohesion		•						
	High temperature resistance						•	•	
	Demanding clear code bonding		•	•		•	•	•	
	LSE bonding				•	•	•	•	
Thickness	0.4	77204							
	0.5		7805			77805			
	0.6	77206							
	0.8	77208	7808	77608	77708	77808	79008 (Q1/2024)	79X08 (Q4/2024)	
	1.0	77210							
	1.1		7811	77611	77711	77811	79011 (Q1/2024)	79X11 (Q4/2024)	
	1.2	77212	7812						
	1.5		7815	77615	77715	77815	79015 (Q1/2024)	79X15 (Q4/2024)	
Temperature	1.6	77216							
	2.0	77220	7820						
Temperature	Long (3 months)	80°C / -40°C	80°C	80°C	80°C	80°C	90°C	90°C	
	Short (15 min)	120°C / -40°C	120°C	120°C	120°C	120°C	120°C	120°C	
Peel adhesion	Clear coat / paint (covered side (1.100 µm))	31 N/cm	28 N/cm	36 N/cm	32 N/cm	39 N/cm	40 N/cm	-	
	LSE (e.g. PP EPDM) w/o pre treatment (1.100µm)	-	-	-	40 N/cm	40 N/cm	40 N/cm	40 N/cm	
	MSE (e.g. ABS) w/o pre treatment (1.100µm)	-	35 N/cm	-	36 N/cm	31 N/cm	40 N/cm	40 N/cm	
Liner	Paper	PV04	PV25	-	-	-	-	-	
	PE	PV31/34 (white)	PV29 (blue)	PV15 (blue)	PV15 (blue)	PV15 (blue)	PV15/PV29 (blue)	PV15/PV29 (blue)	
	PET	PV36 (translucent)							
Approvals / references / spec passed (European OEMs)	VW Group ^{2,3} BMW Group ^{2,3} STELLANTIS ^{2,3} Mercedes ^{2,3} tesla ² Volvo ^{2,3}	VW Group ^{2,3} BMW Group ^{1,2,3} STELLANTIS ^{1,2,3} Mercedes ^{1,2,3} Volvo ³ JLR ^{1,2,3}	VW Group ^{2,3} BMW Group ^{2,3} STELLANTIS ^{1,2,3}	VW Group ^{2,3} Volvo ^{2,3} STELLANTIS ^{1,2,3}	VW Group ^{2,3} BMW Group ³ STELLANTIS ^{1,2,3} Volvo ² JLR ^{1,2,3}	VW Group ^{2,3} BMW Group ³ STELLANTIS ^{1,2,3} Volvo ² JLR ^{1,2,3}	VW Group ³ BMW Group ³ Mercedes ³		

¹Material approval, ²Part reference, ³Internal spec test passed

Backing and adhesives

Backing	Color	Self sticky	Inner strength	Temperature resistance		Additional adhesives	USP	Temperature resistance	
				Short term	Long term			Short term	Long term
Soft acrylic foam	Gray	Yes	Good	120°C	80°C	CC 2	Special Adhesive with excellent initial and long term adhesion on difficult to bond clear coat. Very robust processability.	120°C	90°C
Foamed acrylic	Black	Yes	Very high	120°C	80°C	CC 3	Special Adhesive with excellent initial and long term adhesion on difficult to bond clear coat. Very robust processability.	120°C	90°C
Foamed special acrylic	Black	Yes	Highly balanced	120°C	90°C	LSE B	Special Low Surface Energy (LSE) adhesive with excellent initial and long term adhesion on difficult to substrates like PP EPDM. Very robust processability.	120°C	90°C
Special acrylic foam	Gray	Yes	Highly balanced	120°C	90°C	LSE A	Special Low Surface Energy (LSE) adhesive with best initial tack on difficult to substrates like PP EPDM. Very good initial and long term adhesion on difficult to bond clear coats.	120°C	80°C
						HA2	Heat activated layer for bonding of PP/EPDM, PP, TPV, and TPE materials for optimized anchorage	120°C	90°C
						HA1	Heat activated layer for bonding of PP/EPDM, PP, TPV, and TPE materials	120°C	90°C

tesa ACX^{plus} Seal Line assortment

Product design	tesa ACX ^{plus}	tesa® 745xx Seal Line	tesa® 746xx Seal Line	tesa® 747xx Seal Line
		Two layers	Two layers	Three layers
Backing		Foamed acrylic	Foamed special acrylic	Foamed special acrylic
Adhesive	Closed side	-	-	CC 3
	Open side	Heat activatable (HA1)	Heat activatable (HA2)	Heat activatable (HA2)
Color		Deep black	Deep black	Deep black
Main application		Waterbox seal, sunroof seal, anti-pinch, etc.	Sunroof seal, anti-pinch, applications with high demands for low deformation	Door seals
USP		High peel to various substrates High dynamic stability	Low deformation at static load and elevated temperatures Optimized foam split properties	Low deformation at static load and elevated temperatures No primer needed Optimized foam split properties
Temperature	Short (15 min)	-40°C – 120°C	-40°C – 120°C	-40°C – 120°C
	Long (3 months)	-40°C – 80°C	-40°C – 90°C	-40°C – 90°C
Liner		Blue filmic PE / PV29	Blue filmic PE / PV29	Blue filmic PE / PV29
Thickness Range [mm]	0.8	74508	74608	
	1.2	74512		74712
Approvals / references / spec passed (European OEMs)				VW Group ³

¹Material approval, ²Part reference, ³Internal spec test passed

Liner assortment

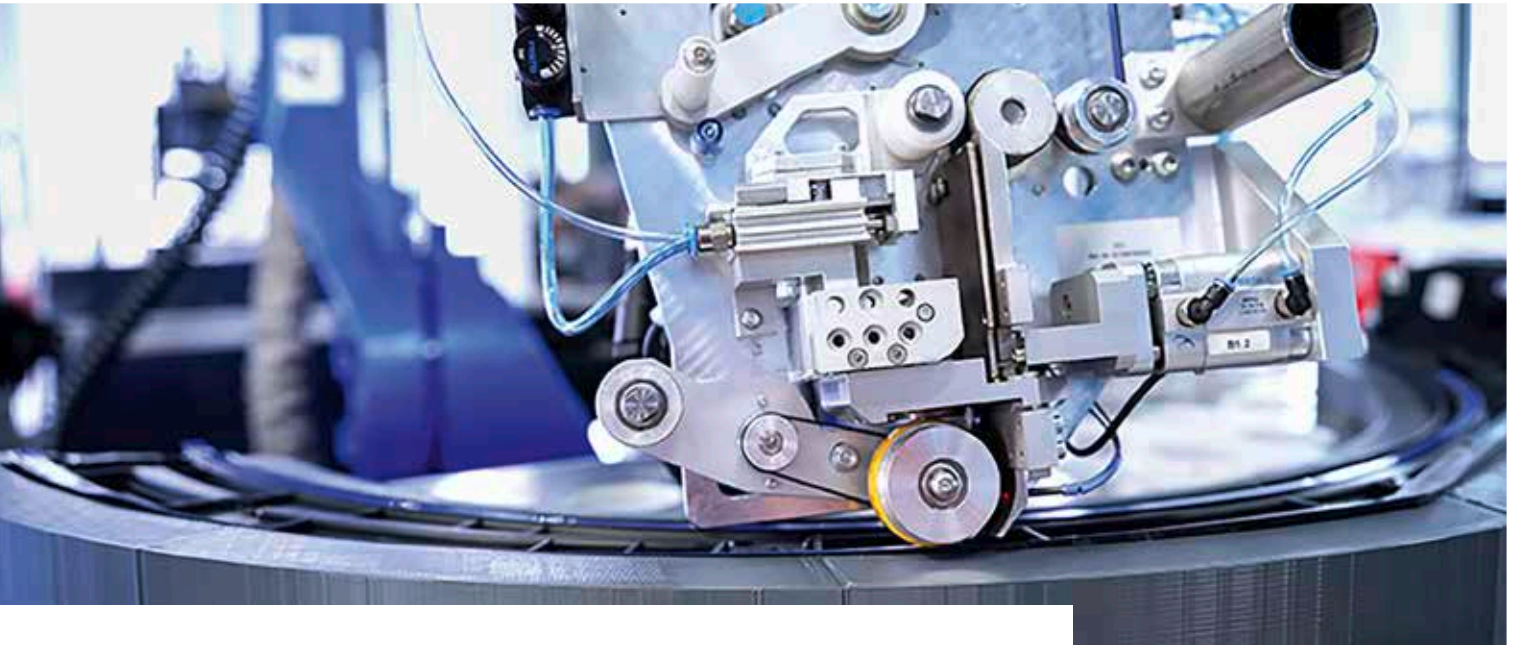
Liner	Product version	Available on	Thickness [mm]	Features				
				Material	Color	Tensile strength	Elongation at break [%]	Available tabbing
PE film based	PV 29	78xx 745xx 746xx 747xx	130	PE film, one side siliconized	Royal blue	>30N/cm	>300%	Heat tabbing: 50999 Adhesive tabbing: 50099 / 50988
		76xx 776xx 777xx 778xx	100	PE film, both sides siliconized	Royal blue	>17N/cm	>1.000%	Adhesive tabbing: 50099 / 50699
		772xx (except for 77204)	110	PE film, both sides siliconized	White	>20N/cm	>800%	Adhesive tabbing: 50099
		77204 77208	80	PE film, one side siliconized	White	>15N/cm	>800%	Adhesive tabbing: 50099 / 50699
Paper based	PV 25 PV 04	78xx	122	PE coated paper	White	>73N/cm	>2,5%	NA
		772xx	122	PE coated paper	White	>73N/cm	>2,5%	NA
PET film based	PV 36	77204		Siliconized PET film	Transparent blue	>75N/cm		Adhesive tabbing: 50699

Adhesion promoters

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

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

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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