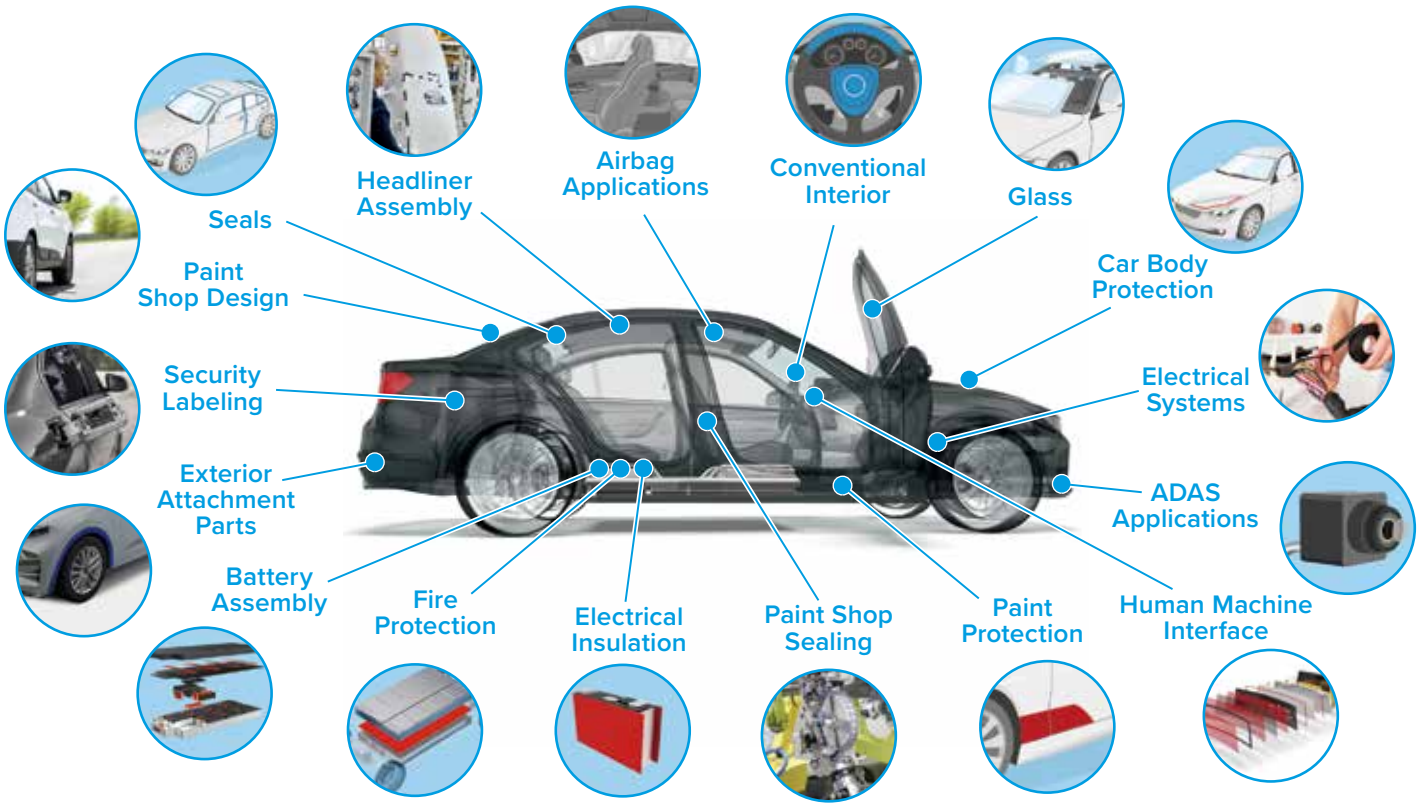
Adhesive Solutions for the Automotive Industry

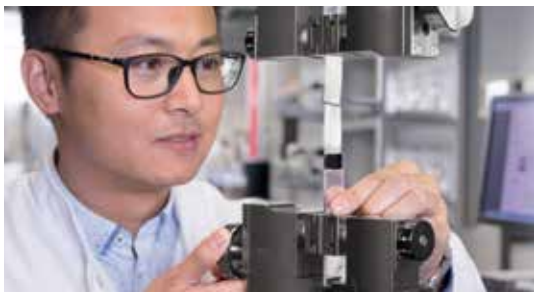
Automotive Assortment Folder

Your Complete Partner



Our labs and technical experts

With our extensive experience in adhesive technology, we have developed a large portfolio of adhesive products for automotive applications.
Our technical experts will support you throughout your entire product development process and help you find the optimal solution for your requirements.



On-site support

We provide individual project support backed up by application engineers and research and development resources. Our technical experts in our Customer Solution Center offer on-site support and evaluation of your individual application under laboratory conditions.

Contents

Holistic and Science-based Approach for Sustainability

Just like us, many of our customers are committed to achieving greater sustainability. We support them by enabling them to make technological progress and actively contribute to sustainability through our products.

"For more than 125 years, tesa has been working on improving our customers' operations, products and lives in a sustainable way with the help of innovative adhesive solutions. In 2022, we further increased the importance of our sustainability strategy with five higly ambitious action areas. We have made sustainability a priority for tesa and are working on this important transformation of our business with greater speed and urgentcy than previously planned. We intend to use our expertise and passion to develop adhesive solutions and products that are more sustainable."

Dr. Norman Goldberg
CEO tesa SE

tesa sustainability goals

Our mission is to increase the pace at which we reduce emissions, vastly improve the sustainability of our products and packaging and ensure responsible sourcing. We have begun to extensively optimize our manufacturing processes at our plants and aim to achieve climate-neutral production by 2030. In the coming years, we will also be investing millions in research projects, knowledge, sustainable materials and our production facilities. We have been involved in the "Business Ambition for 1.5 °C initiative" since 2006. We have akso emphasized once again our commitment to the ten principles of the United Nations Global Compact and to the Sustainable Development Goals, which we have already been pursuing for many years. In other words, we now intend to make an even greater contribution. Last year, we succeeded in cutting our energy-related CO_2 emissions (Scope 1 & 2) by 27 percent in absolute terms (according to the market-based method) compared to 2018.

All employees support this endeavor — our specialists in the development centers in Germany, the USA and China are thinking differently, creatively and from new perspectives. Our customers are providing daily input on what matters to them for the furute and how tesa can play its part in helping them to hit their sustainability targets.

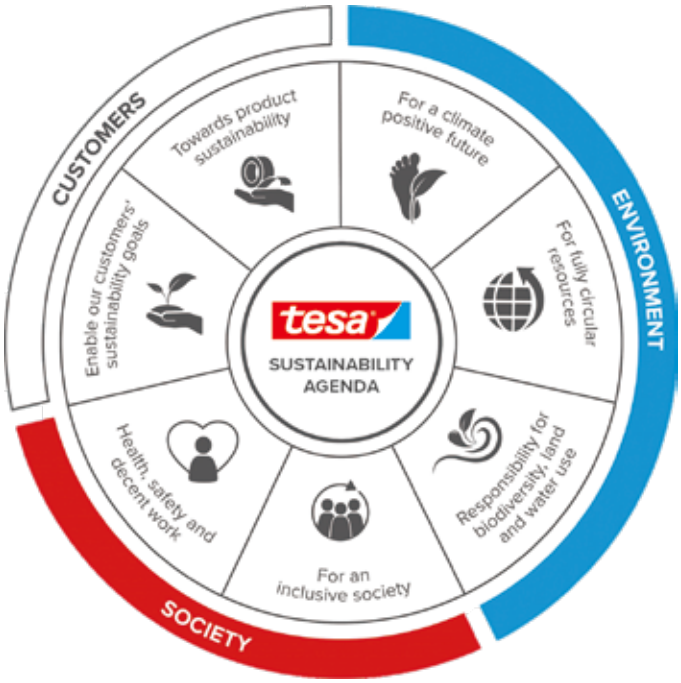
For us, as a company in the chemicals industry, pursuing a holistic perspective and a science-based approach determines our actions and is a matter of course. tesa employs more than five hundred scientistsm enginneers and product developers around the globe with the expertise to come up with innovative, sustainable products and processes. By focusing on technical innovation, we have our sights set not only on reducing our environmental footprint, but also on achieving sustainable growth for tesa.

Importance of sustainability in our corporate strategy

We view sustainability as our responsibility, as an attitude — and as an opportunity. Sustainable behavior requires us to think one step further and to continuously improve. That is why sustainabilty is a firmly established key component of our corporate strategy at tesa. We want to use all our experties and passion to develop products and adhesive solutons that are more sustainable.

Our sustainability strategy

We revised our sustainability strategy in 2022 and identified five strategic action areas for which we formulated long-term targets up to 2030. The action areas cover our entire value chain: Reduction of emissions, Responsible sourcing, Use of recycled and bio-based materials, Circular economy and reducing waste, and Enable sustainability at our customers.



tesa Sustainability Agenda

tesa sustainability goals

we do

reduce emissions
source responsibly
rethink materials
push circularity
support customers

Strategic action areas

Reduce emissions

Source responsibly

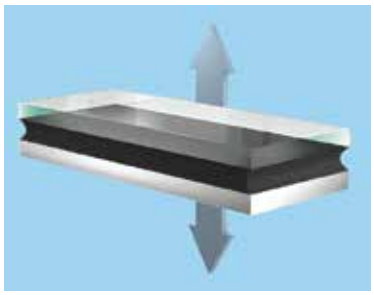
Rethink materials

Push circularity

Support customers

Exterior Mounting

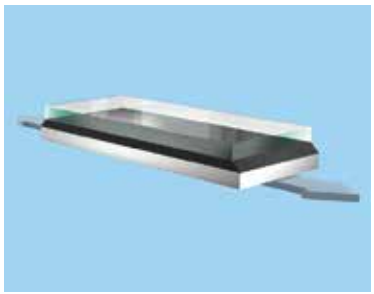
Attachment part mounting with tesa® ACX^{plus}



Bonding power

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

- 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 stress 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 stress can be optimally dissipated, and a secure bond is assured even during extreme temperature changes.

Unique conformability

With the high comformability of tesa® ACX^{plus}, it 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 - Acrylic Foam Tape

			772xx Base Line	78xx Black Line	771xx	776xx Primerless	777xx Primerless	778xx Primerless
Product series								
Backing material			Soft acrylic foam	Foamed acrylic	Soft acrylic foam	Soft acrylic foam	Soft acrylic foam	Soft acrylic foam
Type of adhesive	**Open side**		Pure acrylic	Modified acrylic	Tackified acrylic	Pure acrylic	LSE	LSE
	Covered side		Pure acrylic	Modified acrylic	Tackified acrylic	LSE	Pure acrylic	LSE
Color			Gray	Deep black	Black	Gray	Gray	Gray
Thickness variations			400 µm: 77204 600 µm: 77206 800 µm: 77208 1000 µm: 77201 1200 µm: 77202	500 µm: 7805 800 µm: 7808 1100 µm: 7811 1200 µm: 7812 1500 µm: 7815 2000 µm: 7820	800 µm: 77108 1200 µm: 77112 1500 µm: 77115	800 µm: 77608 1100 µm: 77611 1500 µm: 77615	800 µm: 77708 1100 µm: 77711 1500 µm: 77715	500 µm: 77805 800 µm: 77808 1100 µm: 77811 1500 µm: 77815
Reference product			tesa® 77212	tesa® 7811	tesa® 77112	tesa® 77611	tesa® 77711	tesa® 77811
Thickness			1200 µm	1100 µm	1200 µm	1100 µm	1100 µm	1100 µm
90° peel adhesion[1]	**ASTM Steel**	**Open side**	32 N/cm*	33 N/cm*	30 N/cm*	41 N/cm*	33 N/cm*	35 N/cm*
	ABS	**Open side**	12 N/cm*	35 N/cm*	25 N/cm*	12 N/cm*	36 N/cm*	31 N/cm*
	MSE clearcoat (polar)[2]	**Covered side**	31 N/cm*	28 N/cm*	30 N/cm*	36 N/cm*	32 N/cm*	39 N/cm*
	LSE clearcoat (un-polar)[3]	**Covered side**	27 N/cm*	32 N/cm*	27 N/cm*	44 N/cm*	30 N/cm*	45 N/cm*
Dynamic shear resistance[1]	**PP/EPDM and MSE clearcoart[4]**	**Open side**	79 N/cm*	69 N/cm*	81 N/cm*	84 N/cm*	68 N/cm*	71 N/cm*
	PP/EPDM and MSE clearcoart[4]	**Covered side**	38 N/cm**	19 N/cm**	35 N/cm**	20 N/cm**	27 N/cm**	24 N/cm**
Temperature resistance[5]	**Short term (15 min.)**		120 °C	120 °C	120 °C	120 °C	120 °C	120 °C
	Long term (3 months)		80 °C	80 °C	80 °C	80 °C	80 °C	80 °C

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

PE Foam Tape

Product group	tesa® 66108	tesa® 6285x / 62708	tesa® 6290x	tesa® 649xx
				
Backing material	PE foam	PE foam	PE foam	Soft acrylic foam
Type of adhesive	Tackified acrylic	Pure acrylic	Acrylic	LSE
Color	Black	Black	Black	Black
Key characteristics	General purpose	High temperature performance	High initial performance	Primerless
Thickness variations	800 µm: 66108	500 µm: 62852 800 µm: 62708 900 µm: 62855 1200 µm: 62856	400 µm: 62904 600 µm: 62906	500 µm: 64905 800 µm: 64908 1200 µm: 64912
Reference product	tesa® 66108	tesa® 62708	tesa® 60906	tesa® 64908
Thickness	800 µm	800 µm	600 µm	800 µm
90° peel adhesion[1] **ASTM Steel**	10 N/cm*	15 N/cm*	19 N/cm*	19 N/cm*
ABS	10 N/cm*	15 N/cm*	19 N/cm*	—
PP	10 N/cm*	—	—	19 N/cm*
Tensile strength	8 N/cm*	18 N/cm*	11 N/cm*	8 N/cm*
Temperature resistance[2] **Short term (15 min.)**	80 °C	120 °C	110 °C	80 °C
Long term (3 months)	80 °C	100 °C	100 °C	80 °C

[1] 14 days | [2] Static shear tests. Displayed values are target values, values can differ by customer substrates, load and test method. * RT

High-initial Performance Tape (HiP)

Product group	tesa® 92xxx HiP
Backing material	None
Type of adhesive	High performance polymer foam
Color	Black
Thickness variations	500 µm: 92105 800 µm: 92108 1100 µm: 92111

tesa® 92108 HiP / 800 µm		
90° Peel adhesion	**Steel (inital)**	32 N/cm
	Steel (3 days)	35 N/cm
	PP (initial)	28 N/cm
	pp (3 days)	36 N/cm

Sealing Tape for Slush Skin (Single-sided Tape)

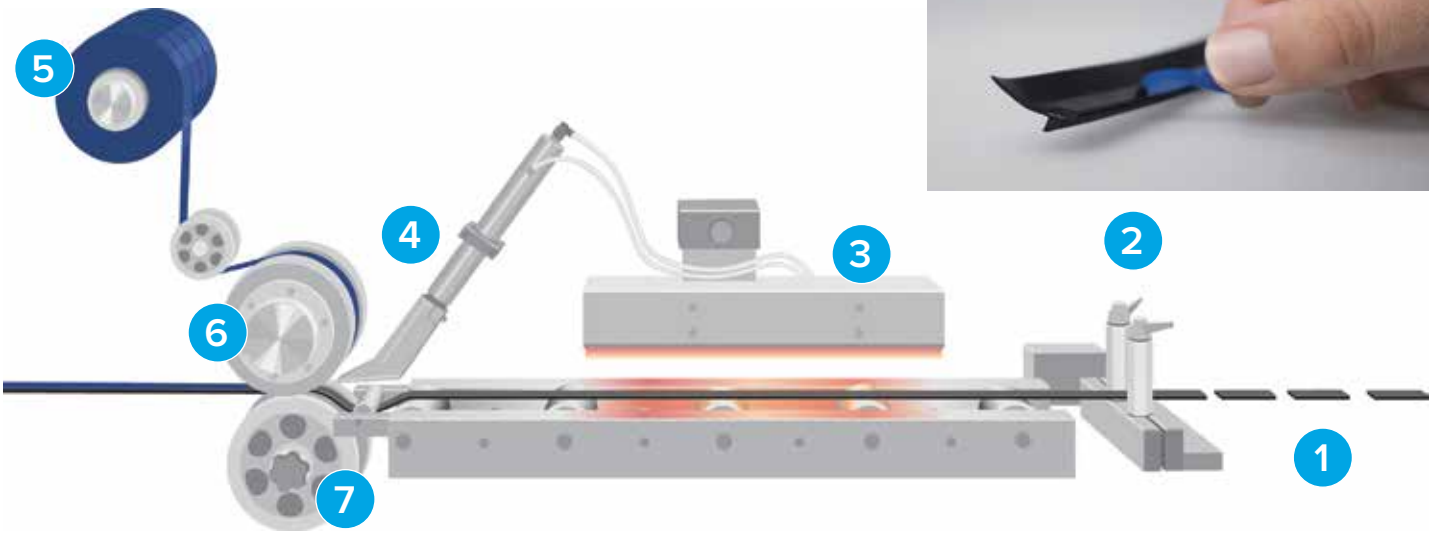
Product	tesa® 50340
Backing material	PU film
Type of adhesive	Acrylic
Color	Transparent
Thickness	105 µm

tesa® 92108 HiP / 800 µm		
90° Peel adhesion	Steel (inital)	32 N/cm
	Steel (3 days)	35 N/cm
	PP (initial)	28 N/cm
	pp (3 days)	36 N/cm

tesa® ACXplus Seal Line - Acrylic Foam Tape for Seal Mounting

Product group		tesa® ACXplus 745xx Seal Line
Backing material		Foamed acrylic
Type of adhesive	Open side	Acrylic
	Covered side	Heat-activatable
Color		Deep black
Thickness variations		800 µm: 74508 1200 µm: 74512

tesa® ACXplus 74508 Seal Line / 800 µm		
90° Peel adhesion	Glass (1 day)	56 N/cm
	Glass (10 days, warm / humid*)	60 N/cm
T-Peel test	TPE (1 day)	35 N/cm
	TPE (10 days, warm / humid*)	40 N/cm



Heat activating process

1. Continously or discontinously feeding the profile
2. Positioning of the profile
3. Infrared lamp to preheat the profile (optional)
4. Hot air/blowtorch*
5. Unwinding station
6. Water cooled lamination unit
7. Unchilled lamination unit

*Blowtorch is displaceable, so the hot air does not heat the machine and tape whilst machine is not running

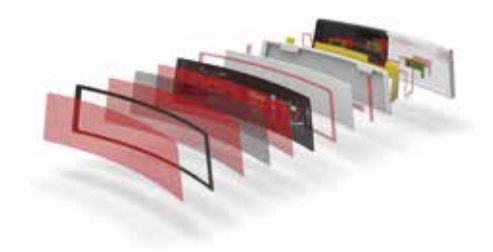
Interior Mounting

For next generation Human Machine Interfaces

Most haptic buttons have already been replaced by displays and seamlessly integrated smart surfaces. Demanding requirements can be met with tesa HMI tapes which enable innovative designs such as complex curved shapes. We offer reliable tape solutions for extreme conditions involving direct sun exposure.

Head-up display

We offer reliable tape solutions for extreme conditions involving direct sun exposure. Check out our viscoelastic mounting tapes, the approved solution of the world's leading HUD OES.



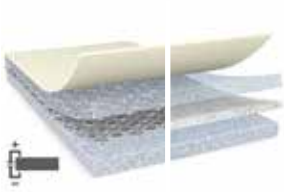
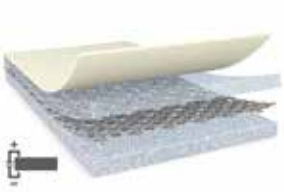
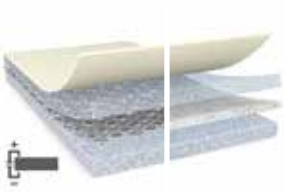
Automotive display

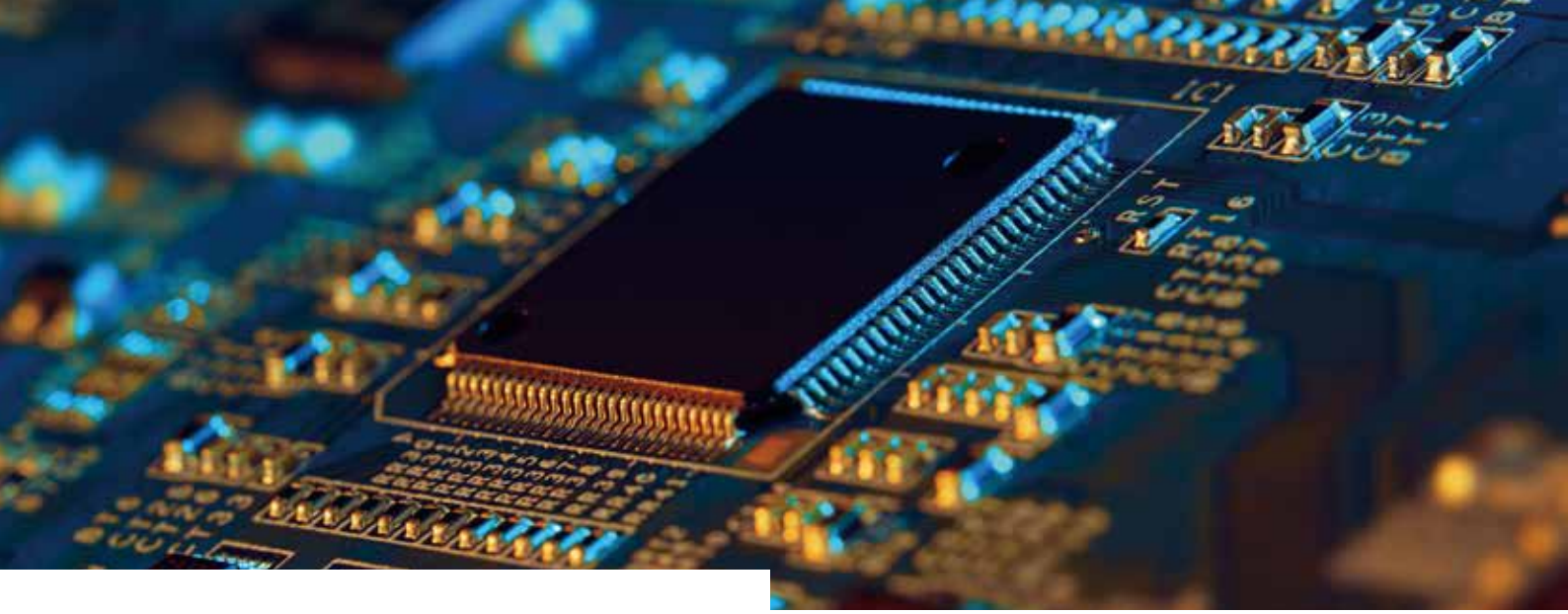
With tesa HMI tapes demanding automotive requirements can be met and innovative designs like complex shapes are enabled. Check out our OCA assortment, which enables optical bonding even on curved and round shapes.

Smart surface HMI

Most haptic buttons have already been replaced by displays and seamlessly integrated smart surfaces. Analyze our outgassing resistant OCA options, specifically designed for the optical integration of printed touch films behind polycarbonate covers.

Electrically Conductive Tape (ECT)

		tesa® 6025x / 6026x	tesa® 6036x	tesa® 6037x	tesa® 6038x
Product group					
Backing material		Conductive woven / non-woven	Conductive woven	Conductive woven / non-woven	Conductive woven / non-woven
Type of adhesive		Conductive acrylic	Conductive acrylic	Conductive acrylic	Conductive acrylic
Color		Gray	Gray	Black	Gray
Key characteristics		Balanced property	High bonding strength, high conductivity	Best conductivity	Best bonding strength, repulsion resistance
Thickness variations		50 µm: 60262 55 µm: 60251 / 60252 70 µm: 60253 100 µm: 60254 150 µm: 60255 200 µm: 60256 250 µm: 60257	50 µm: 60362 100 µm: 60364	30 µm: 60371 50 µm: 60372 100 µm: 60374	30 µm: 60380 50 µm: 60381 / 60386 100 µm: 60384 / 60388
Reference product		60262	60362	60372	60381
Thickness		50 µm	50 µm	50 µm	50 µm
Peel adhesion[1]	**Steel (initial)**	5.4 N/cm	7.0 N/cm	4.3 N/cm	8.0 N/cm
	Steel (14 days)	8.3 N/cm	8.0 N/cm	5.6 N/cm	10.0 N/cm
Surface resistance (x-y-direction)		0.2 mΩ.sq	0.1 mΩ.sq	0.1 mΩ.sq	0.3 mΩ.sq
Contact resistance (z-direction)		0.05 mΩ.inch^2	0.01 mΩ.inch^2	0.01 mΩ.inch^2	0.06 mΩ.inch^2
Sielding effectiveness		> 50 -dB	> 60 -dB	> 50 -dB	> 50 -dB



Thermal Conductive Tape (TCT)

	tesa® 6073x	tesa® 6074x	tesa® 5839x	tesa® 5832x
Product group				
Backing material	None	None	None	None
Type of adhesive	Acrylic	Acrylic	Acrylic	Acrylic
Color	White	White	White	White
Key characteristics	Great bonding/wetting, good conductivity	Great bonding/wetting, good conductivity	Great electrical insulation	Great electrical insulation
Focus application	Lamination / Mounting	Lamination / Mounting	Mounting	Gap filling
Thickness variations	50 µm: 60732 100 µm: 60733	10 µm: 60742 30 µm: 60743 50 µm: 60744 100 µm: 60745	125 µm: 58394 250 µm: 58395 400 µm: 58398 800 µm: 58399	1200 µm: 58326 1500 µm: 58327 2000 µm: 58328
Reference product	60733	60745	58394	58326
Thickness	100 µm	100 µm	125 µm	1200 µm
Peel adhesion Steel (initial)	5.0 N/cm	4.5 N/cm	4.8 N/cm	0.55 N/cm
Thermal conductivity[1] (z-direction)	0.7 W/mK	1.0 W/mk	0.7 W/mk	2.0 W/mk
Wetting	92 %	81 %	—	—
Breakdown voltage	—	—	4.1 kV	15 kV

[1] Measured by ASTM D5470

Double-sided Filmic Tape

		tesa® 49xx	tesa® 519x
Product group			
Backing material		PET	PET
Type of adhesive		Tackified acrylic	Tackified acrylic
Color		Transparent	Black
Thickness variations		30 µm: 4983 50 µm: 4972 80 µm: 4980 100 µm: 4982 125 µm: 4928 160 µm: 4967 200 µm: 4965 250 µm: 4926	30 µm: 59183 50 µm: 51972 80 µm: 51980 100 µm: 51982 125 µm: 51928 160 µm: 51967 200 µm: 51965 250 µm: 51926
Reference product		4982	51982
Thickness		100 µm	100 µm
Peel adhesion[1]	**SUS (initial)**	11.0 N/cm	11.0 N/cm
	SUS (14 days)	11.7 N/cm	11.7 N/cm
Push-out		230 N	230 N
DuPont (xy)		0.5 J	0.5 J
DuPont (z)		0.2 J	0.2 J

Stretch-release Tape (Bond & Detach®)

tesa Bond & Detach® is an extraordinary adhesive technology used for demanding bonding applications that provides the option to be removed residue-free by stretching. The unique and patented technology was developed by tesa and offers the possibility of simple and secure reworkability during the entire product lifecycle – from production to end of life.

Product	tesa® 76555
Backing material	None
Type of adhesive	Specialty
Color	White
Thickness	500 µm

Technical data		
Peel adhesion	Steel (inital)	30 N/cm
	PE (initial)	13 N/cm
Elongation at break		700 %
Temperature resistance (long term)		90 °C

Heat Activated Film (HAF®)

tesa HAF® is a thermosetting adhesive system, provides high structural bonding performance to a wide variety of substrates. An irreversible cross-linking reaction is initiated by heat and pressure starting at temperatures above 120°C, resulting in extremely strong bonds. The processing of these adhesive systems is simplified due to excellent die cuttability, immediate handling stability after activation, and low oozing.

Product group	tesa HAF® 94xx
Backing material	None
Type of adhesive	Nitrile rubber / phenolic resin
Color	Amber
Thickness variations	30 µm: 9405 60 µm: 9410 125 µm: 9402 200 µm: 9401

Optically Clear Adhesive (OCA)

	tesa® 887xx	tesa® 880xx	tesa® 699xx
Product group			
Backing material	None	None	None
Type of adhesive	Acrylic	Acrylic	Acrylicv
Category	PSA	PSA	UV cure
Color	Transparent	Transparent	Transparent
Key characteristics	Superior gap compensation performance of glass covers in a thickness range up to 500µm	Best in class outgassing avoidance to enable optical integration behind plastic covers	UV cure feature enabling good ink step coverage and special curing through PC option
Focus application	Glass substrate, L-size, Curved	Plastic substrate	Plastic curved display
Thickness variation	200 µm: 88708 250 µm: 88710 300 µm: 88712 500 µm: 88720	150 µm: 88006 200 µm: 88008 250 µm: 88010 300 µm: 88012	50 µm: 69902 100 µm: 69904 150 µm: 69906 200 µm: 69908
Reference product	88708	88008	69908
Thickness	200 µm	200 µm	200 µm
Peel adhesion[1] **Glass**	8.2 N/cm	7.6 N/cm	14.5 N/cm
Peel adhesion[1] **PC**	—	7.1 N/cm	14.9 N/cm
Transmittance (380 - 780nm) >	99.5 %	99 %	99 %
Refractive index	1.48	1.47	1.48
Ink step coverage	● ● ●	● ●	● ● ●
Outgassing resistance	●	● ● ● ●	● ● ● ●
Curved application	● ● ● ●	● ● ●	● ● ● ●

Cable Mounting Tape

Up to now, mainly hotmelt solutions have been used for mounting cable harnesses and other parts to the headliner. In collaboration with Bertrandt, a leading technology development service provider in the Automotive sector, tesa has refined the automated assembly of headliners in cars.

Product	tesa® 50400
Backing material	Non-woven
Type of adhesive	Waterborne acrylic
Color	Black
Thickness	350 µm

Technical data		
Peel adhesion	Steel (inital)	> 13 N/cm
	PET Fleece Headliner	> 10 N/cm
	PET Fleece Surface	> 10 N/cm
Elongation at break		35 %

Simple

Reduced cycle time
By instant further processing without waiting

Repositionability
Of cable bandle during assembly

Reliable

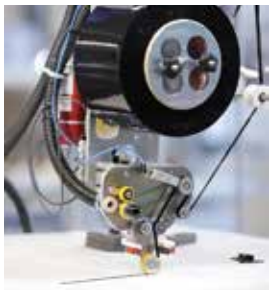
Excellent bonding
On rough and irregular headliner materials

Eliminate NVH issues
Elastic material will not break

Safe

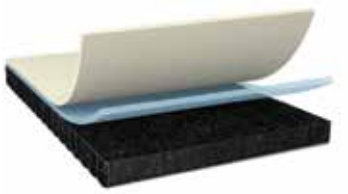
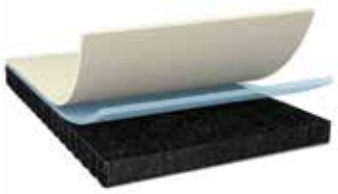
No heating
Designed to be applied in room temperature

Low VOC product
According to VDA 278



Available in spools for fully automated process and pancake rolls for manual applicators

Noise-damping Tape

	tesa® 60303 Ultra Low VOC	tesa® 60307 Ultra Low VOC	tesa® 60310 Ultra Low VOC
Product group			
Backing material	PET fleece	PET fleece	PA velour
Type of adhesive	Acrylic	Acrylic	Acrylic
Color	Black	Black	Black
Thickness	230 µm	480 µm	525 µm
Log roll dimension	1140 mm x 200 m	1140 mm x 200 m	1140 mm x 200 m
Elongation at break	20 %	20 %	80 %
Tensile strength	35 Ncm	28 N/cm	150 N/cm
Abraision resistance	Class A	Class C	Class D
Noise damping	Class C	Class D	Class E

Classification according to LV 312 standard

Abraision resistance

Class	A	B	C	D	E	F
Number of strokes	< 100	100 - 499	500 - 999	1000 - 4999	5000 - 14999	15000 - 29999
Level of abrasion protection	—	Basic	Medium	High	Very high	Extremely high

Noise damping

Class	A	B	C	D	E
Attenuation dB	0 to ≤ 2	> 2 to ≤ 5	> 5 to ≤ 10	> 10 to ≤ 15	> 15
Level of noise cancelling	—	Basic	Medium	High	Very high

e-Powertrain

Accelerating battery production

Electrical insulation

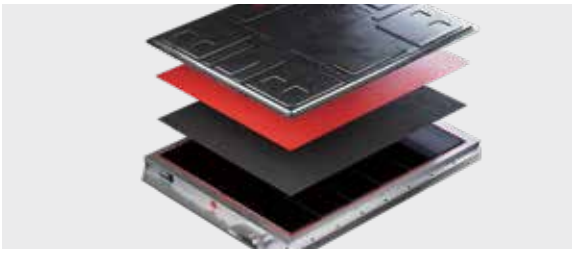
Adhesive tapes with high breakdown voltage guarantee secure electrical insulation for highly automated production processes.

Area of application	tesa solution			
Cell wrapping	PET, PCR-PET*	Transparent, black, blue	58331, 58353, 58338, 58355, 58352, 58347, 58655	50 — 110 µm
Metal part insulation	PET, PCR-PET	Transparent, black, blue	58358, 58330, 58351, 58356, 58357, 58344	45 — 220 µm
In-cell	PET, PP	Blue	58337	35 — 45 µm

*PCR: post-consumer-recycled

Fire protection

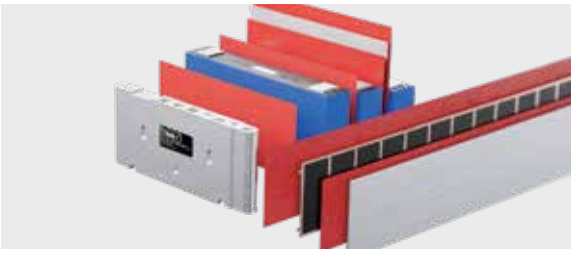
Whether a full solution including functional materials or the ideal adhesive solution: tesa offers products for any substrate, enabling fire protection and matching automotive safety requirements.



Area of application	tesa solution			
Lid protection	Siliconized glass-fibre	White	58311	1200 µm
Fire protection material mounting and encapsulation	PET	Transparent, white	58332, 58334, 58335, 58372, 58373, 58374, 58377	50 — 150 µm
Fireman access	Glassfiber, aluminium, PET	White	54485	9690 µm
Fire- and heat resistant hole covering patches	Aluminium laminated glass-cloth	Silver	54332	1010 µm

Mounting

Reliable and strong bonding over the entire vehicle lifetime can be combined with a debonding on demand function, enabling re-manufacturing and recycling.



Area of application	tesa solution			
FPC mounting	Non-woven	Transparent	8851, 8853, 8854, 8857	50 — 100 µm
Thermal management	No backing (transfer tapes)	White, transparent	60743, 60744, 58394, 58395, 58398, 58399	30 — 400 µm
Cell-to-cell and components mounting / Battery assembly	PET	Transparent	58323, 58360, 58362, 58363, 58364	50 — 200 µm

Venting

Reliable emergency degassing which enables automated application, whilst saving weight and space.

Area of application	tesa solution			
Battery pack and module venting	PCR-PET, aluminium	Silver, transparent	54112	< 400 µm

Sealing

Protection against moisture and corrosion over allow entire vehicle lifetime. Box and battery pack sealing also allows the re-opening for service and maintenance.

Area of application	tesa solution			
Box and battery pack sealing	Foamed acrylic	Deep black	76730	2800 µm
Hole sealing	Acrylic, PET	Transparent, grey, black	54348, 54336, 54349, 54335	90 µm – 1690 µm

Hole Covering

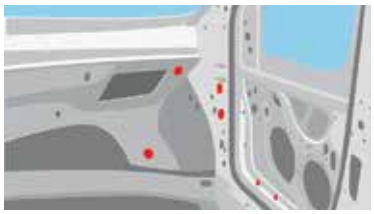
Adhearing instead of plugging

Process advantages through die-cuts

Our tailor-made hole covering solutions contribute towards weight reduction in the vehicle and also go a long way towards making your production more efficient, process securer and operator friendly. Process-specific delivery forms make the application of the die-cuts significantly easier than that of plugs.

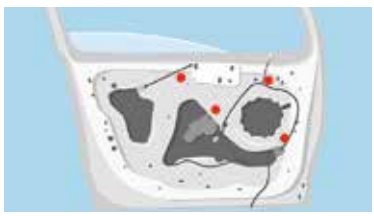
Easy application

tesa® 54657 can easily conform to complex surfaces or difficult-to-reach application areas where plugs are just not effective. Our cloth tapes are equipped with rubber-based adhesives which have a high-strength bond to a variety of substrates.



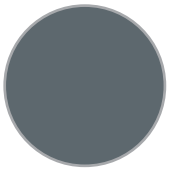
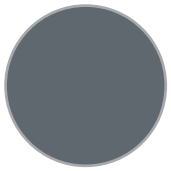
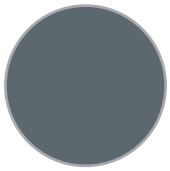
Acoustic insulation

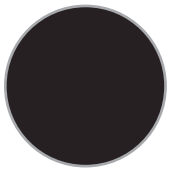
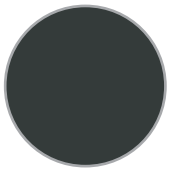
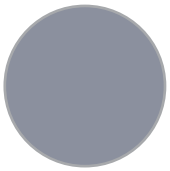
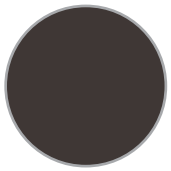
Primary applications for tesa® 54715 include hole cover applications that require excellent noise damping as well as sealing against humidity. The excellent acoustic-damping performance achieved is comparable with a close metal car body. An added benefit is the ability to be applied both pre-and post-paint cycle.



Air-tight and noise sealing

tesa® 54337 is a good sound damper in addition to having the ability to seal off holes form water and dust. Therefore, it is often used in hole covering applications that require flexibility and insulation properties.

	Battery	Exterior				
	tesa® 54332 FireGuard	**tesa® 54335 PV0 PuctureGuard**	**tesa® 54335 PV1 PuctureGuard**	**tesa® 54335 PV2 PuctureGuard**	**tesa® 54339 Low VOC**	**tesa® 54349 90% PCR PET**
Product						
Backing material	Aluminium laminated glasscloth	PET film	PET film	PET film	PET film	PET film
Type of adhesive	Modified acrylic	Modified acrylic	Modified acrylic	Modified acrylic	Acrylic	Modified acrylic
Thickness	1010 µm	990 µm	690 µm	1690 µm	260 µm	260 µm
Color	Silver	Gray	Gray	Gray	Transparent (target print possible)	Transparent (target print possible)
Adhesion to steel	22 N/cm	12 N/cm	-	12 N/cm	6.5 N/cm	10 N/cm
Puncture resistance	400 N	1000 N	1000 N	1000 N	730 N	880 N
Temperature resistance	200 °C	160 °C	160 °C	160 °C	160 °C	180 °C

	Inetrior					
	tesa® 54336 Interior Sealing Patch	**tesa® 54337 Low VOC**	**tesa® 54338**	**tesa® 54348 90% PCR PET**	**tesa® 54657 Low VOC**	**tesa® 54715 Noise Blocker Standard**
Product						
Backing material	PET film	PVC film	PET film	PET film	Acrylic-coated cloth	PO film
Type of adhesive	Modified acrylic	Acrylic	Modified acrylic	Modified acrylic	Natural rubber	Modified acrylic
Thickness	450 µm	450 µm	95 µm	95 µm	290 µm	1060 µm
Color	Black	Black	Transparent (target print possible)	Transparent (target print possible)	Gray	Gray
Adhesion to steel	19 N/cm	8 N/cm	4 N/cm	7 N/cm	6 N/cm	6 N/cm
Puncture resistance	440 N	470 N	600 N	650 N	350 N	120 N
Temperature resistance	190 °C	110 °C	160 °C	160 °C	180 °C	100 °C

Security Labeling

Process optimization using state-of-the-art laser technology

Vehicle Identification Numbers (VIN), certification, service, safety or warning and instruction information — a wide variety of marking systems are required throughout a vehicle. Some need to be completely tamper-proof, while others need to withstand extreme environmental conditions, such as in the engine compartment. We offer a comprehensive range of laser labels to meet all requirements, combining our knowledge of laser marking technologies with our expertise in self-adhesive films.

Warning and instruction labels

Tire pressure and fuel information, engine compartment service instructions, as well as airbag, engine and airconditioning warnings are only some examples of the wide range of labels in use throughout the vehicle. Our cross-linked acrylic label material is ideally suited for a long-lasting and highly resistant application.

Tamper evident features

Our laser labels are tamper evident; in the event of tampering, our laser labels are destroyed, leaving a visible trace. No transfer of the label is possible. It is used as an identification label throughout the life of the product and as a data carrier system for intelligent in-process control.

Maximize security with customer watermark and micro scripting

To maximize security, we offer customer specific watermark (logo design) with visible and hidden security features. Micro-scripting, hidden design is also available.
*UV footprint (on request)
A UV fluorescent adhesive parmanently marks the substrate, leaving a detectable trace indicating label removal or tampering.

Standard Security Label

Product		tesa® 6930 PV3				tesa® 6930 PV6	tesa® 6930 PV8
Backing material		Double-layered acrylic	Double-layered acrylic	Double-layered acrylic	Double-layered acrylic	Double-layered acrylic	Double-layered acrylic
Type of adhesive		Acrylic	Acrylic	Acrylic	Acrylic	Acrylic	Acrylic
Thickness		95 µm	95 µm	110 µm	110 µm	140 µm	118 µm
Cusom logo and micro scripting		—	—	—	—	—	—
Temperature resistance long term		120 °C	120 °C	120 °C	120 °C	120 °C	120 °C
Color variation	Color code	04	28	35	34	04	08
	Top layer	Black	Black	Silver	Silver	Black	White
	Second layer	White	White	Black	Black	White	Black
	Surface	Glossy	Mat	Glossy	Mat	Glossy	Glossy

High-speed Security Label

Product		tesa® 6940 PV6	tesa® 6947 PV3		tesa® 6947 PV6		tesa® 6957 PV1		tesa® 6957 PV3	
Backing material		Double-layered acrylic	Double-layered acrylic		Double-layered acrylic		Double-layered acrylic		Double-layered acrylic	
Type of adhesive		Acrylic	Acrylic		Acrylic		Acrylic		Acrylic	
Thickness		140 µm	95 µm		140 µm		127 µm		95 µm	
Customer watermark and micro scripting		—	●		—		●		—	
Temperature resistance long term		120 °C	120 °C		120 °C		150 °C		150 °C	
Color variation	Color code	04	04	28	04	28	04	28	04	28
	Top layer	Black	Black	Black	Black	Black	Black	Black	Black	Black
	Second layer	White	White	White	White	White	White	White	White	White
	Surface	Glossy	Glossy	Mat	Glossy	Mat	Glossy	Mat	Glossy	Mat

Masking

Enabling diverse design upgrades

The visual appeal of today‘s paint designs is an essential buying criteria for car drivers. Our comprehensive masking assortment support OEMs to create an accurate and unique look, while ensuring easy and lean paint shop processes. This helps OEMs to create an unique yet reproducible car design.

Two-tone fineline masking

Bumper masking

Flange masking

Repair masking

High-temperature car body masking

Available in Roll masker design (on request)

Filmic Masking Tape

Product	Backing material	Type of adhesive	Thickness	Color	Adhesion to steel	Temperature resistance
tesa® 4174	PVC film	Natural rubber	110 µm	Light green	3.7 N/cm	150 °C
tesa® 4185	PVC film	Natural rubber	100 µm	Blue	3.1 N/cm	160 °C
tesa® 4244 PV2	PVC film	Natural rubber	137 µm	Yellow	4.2 N/cm	140 °C
tesa® 7133	PP film	Natural rubber	80 µm	Blue	1.8 N/cm	120 °C
tesa® 7140 PV0	PVC film	Natural rubber	168 µm	Yellow	4 N/cm	170 °C
tesa® 50600 Standard	PETP film	Silicone	80 µm	Green translucent	4 N/cm	220 °C
tesa® 50650 Conformable	PETP film	Silicone	55 µm	Blue translucent	3.3 N/cm	220 °C
tesa® 50680	PETP film	Silicone	80 µm	Transparent	4 N/cm	220 °C
tesa® 50777	PVC film	Acrylic	132 µm	Blue	2 N/cm	160 °C
tesa® 51108	PET film	Natural rubber	54 µm	Milky white	3.3 N/cm	150 °C
tesa® 61124	PETP film	Silicone	60 µm	Blue translucent	3.5 N/cm	220 °C
tesa® 61128	PET film	Silicone	85 µm	White	4.3 N/cm	220 °C

Paper Masking Tape

Product	Backing material	Type of adhesive	Thickness	Color	Adhesion to steel	Temperature resistance
tesa® 4302	Slightly-creped paper	Natural rubber	170 µm	Brown	3.7 N/cm	150 °C
tesa® 4304	Slightly-creped paper	Natural rubber	180 µm	Brown	3.1 N/cm	160 °C
tesa® 4309 PV1	Slightly-creped paper	Natural rubber	170 µm	Brown	4.2 N/cm	140 °C
tesa® 4316 PV3	Slightly-creped paper	Natural rubber	140 µm	Milky white	4.6 N/cm	180 °C
tesa® 4317	Slightly-creped paper	Natural rubber	140 µm	Milky white	1.8 N/cm	120 °C
tesa® 4319	Highly-creped paper	Natural rubber	375 µm	Brown	4 N/cm	170 °C
tesa® 4328 / 4330	Slightly-creped paper	Natural rubber	175 µm	Black, Red, Blue, Yellow, Milky white	4 N/cm	220 °C
tesa® 4329 PV1	Slightly-creped paper	Natural rubber	125 µm	Milky white	3.3 N/cm	220 °C
tesa® 4341	Slightly-creped paper	Natural rubber	190 µm	Brown	2 N/cm	160 °C
tesa® 53123	Slightly-creped paper	Synthetic rubber	125 µm	Beige	3.3 N/cm	150 °C

Cloth Masking Tape

Product	Backing material	Type of adhesive	Thickness	Color	Adhesion to steel	Temperature resistance
tesa® 4657 PV0	Acrylic-coated cloth	Thermosetting natural rubber	290 µm	Black, Gray	4.6 N/cm	180 °C

Surface Protection

Perfect care for visible success

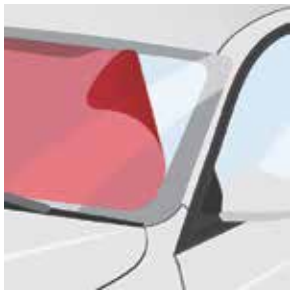
In a globalized world, protection films, pads, and car covers reduce the risk of damage in PEM logistics processes. These superior protection tapes result in less damage and meet the high expectations of car dealers around the globe. Our adhesive solutions provide resistance against climatic influences and keep freshly painted clear coats clean.

Filmic car body protection

Textile car body covering

Foam based bumper protection

Printed security sealing



Glass protection

Plastic protection

Parmanent paint protection

Alloy wheel protection

Product	Backing material	Type of adhesive	Thickness	Color	Adhesion to steel	Tensile strength
tesa® 4247 PV2	PVC film	Natural rubber	54 µm	Transparent	2.4 N/cm	47 N/cm
tesa® 4360	PE film	Acrylic	51 µm	Transparent	0.3 N/cm	13 N/cm
tesa® 4848 PV1	PE film	Acrylic	48 µm	Transparent	0.8 N/cm	12 N/cm
tesa® 7133	PP film	Natural rubber	80 µm	Blue	1.8 N/cm	133 N/cm
tesa® 50530 PV3	PO film	EVA	79 µm	White	0.9 N/cm	30 N/cm
tesa® 50535 PV0	PO film	EVA	59 µm	White	0.6 N/cm	24 N/cm
tesa® 50549 PV7	PO film	EVA	50 µm	White	0.6 N/cm	—
tesa® 50551	PE film	Acrylic	70 µm	Transparent	1.2 N/cm	11 N/cm
tesa® 51132	PE film	Acrylic	85 µm	Transparent	2.8 N/cm	15 N/cm
tesa® 51334	PE film	Acrylic	84 µm	Transparent	2.4 N/cm	15 N/cm
tesa® 51336 PV0	PE film	Acrylic	105 µm	Green translucent	2.4 N/cm	19 N/cm
tesa® 54994 PV0	PU film	Acrylic	260 µm	Transparent	7.5 N/cm	90 N/cm
tesa® 54995 PV0	PU film	Acrylic	280 µm	Transparent	13.5 N/cm	50 N/cm

Dispensers and Tools

Great tools for automization and handheld application

Even small adjustments in production can have a great impact on the efficiency and quality. We can offer a full range of automatic to handheld dispenser for a fast and convenient application. Our dispensers offer a high level of process stability and cost savings. We customize our applicators according to your specific needs to meet production process requirements.

Dispensers, cardy cuts, and squeegees are part of our complementary product range that helps line workers to enjoy workability for a better quality in operations.

Dispensers

We offer many options of dispensers from manual handheld devices to automatic devices to support and improve the efficiency and quality of the applications at our customers' production sites.

Tools

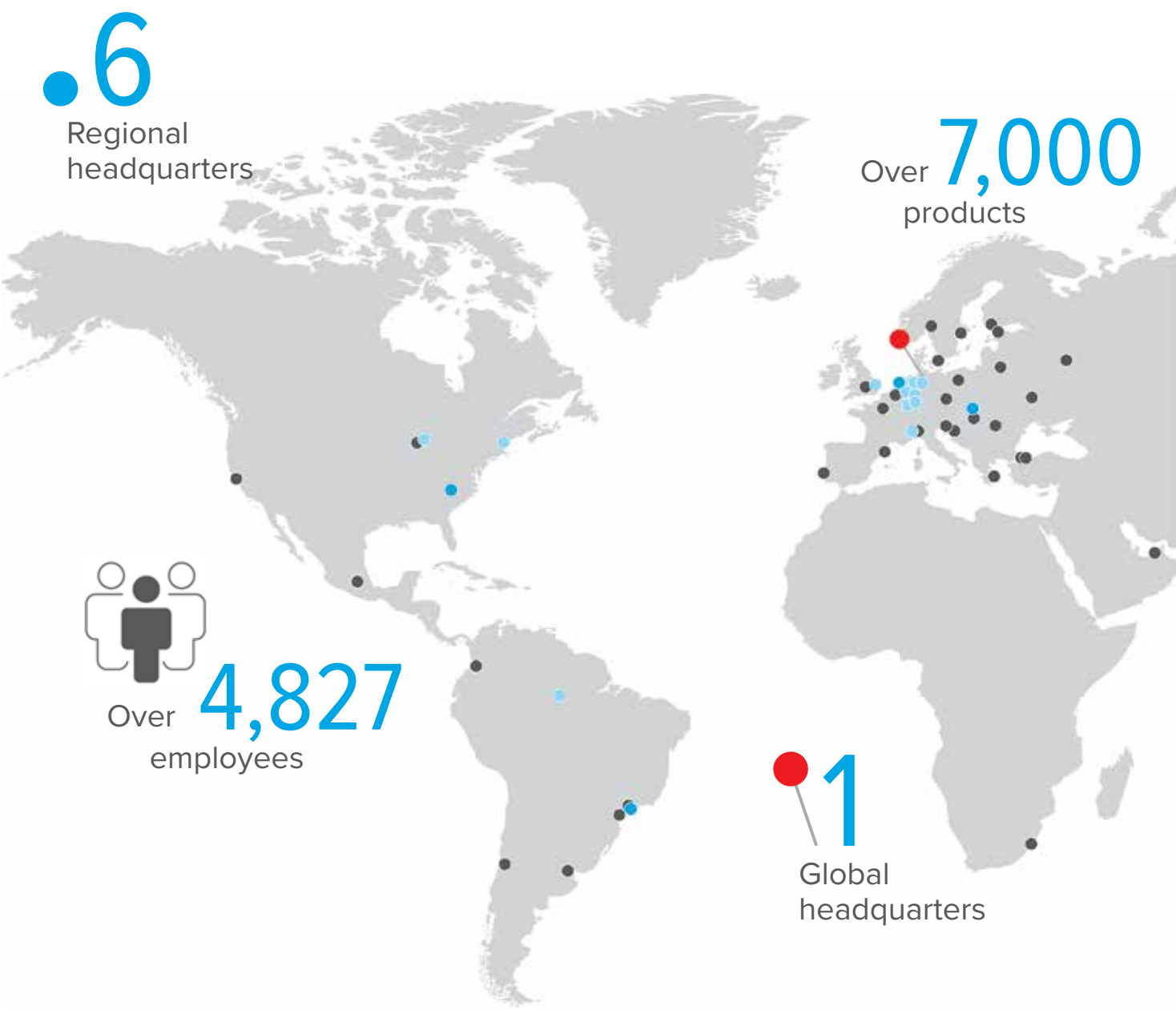
To better support the line workers in delivering better quality in the operation lines, we also offer complementary tools for tape positioning, tabbing, solutions, cutters, promotor applications and more.

Do not know which type of dispenser or is suitable?

If you do not find the right dispenser to enhance your production process, please contact us. Together we will find a suitable solution for you.

To learn more about our dispensers, visit our website:
www.tesa.com/en-sg/industry/general-applications/tape-dispensers

Global Presence



14
Production and converting centers

Located in
50
countries

70
Patent applications annually

Your local contacts

Regional Headquaters (Singapore)

tesa tape Asia Pacific Pte. Ltd.

9 North Buona Vista Drive
04-01 The Metropolis Tower 1
138588 | Singapore

+65 6697 9888

Marketing.Singapore@tesa.com

India — tesa tape Pvt. Ltd.

Plot No 27, Sec 15, CBD Belapur
301, 3rd Floor, Lakhani Centrium
400614 | Navi Mumbai, Maharashtra, India

+91 22 4741 9200

Marketing.India@tesa.com

Indonesia — tesa tape Asia Pacific Pte. Ltd.

11th Floor, Suite A, Perwata Tower
CBD Pluit, Jl Pluit Selatan Raya
14440 | Jakarta Utara, Indonesia

+62 21 6667 2978

Sales.Indonesia@tesa.com

Japan — tesa tape K.K.

1-27-6 Shirokane, Minato-ku
Shirokane Takanawa Station Bldg. 8F
108-0072 | Tokyo, Japan

+81 3 6833 2300

Tokyo.Sales@tesa.com

Malaysia — tesa tape Sdn Bhd.

6 Jalan P/15, Kawasan Perindustrian Miel
Bandar Baru Bangi
43650 | Selangor, Malaysia

+60 3 8927 3010

Sales.Malaysia@tesa.com

South Korea — tesa tape Korea Ltd.

36 Teheran-ro 87-gil, Gangnam-gu
City Air Tower, Office 1805
06164 | Seoul, Korea

+82 2 34330 100

Marketing.Korea@tesa.com

Thailand — tesa tape Thailand Ltd.

Debaratna Road, Bangna-Tai
1858/85, 18h Floor, Interlink Tower Bangna
10260 | Bangkok, Thailand

+66 2751 4028

Sales.Thailand@tesa.com

Vietnam — tesa tape Vietnam Ltd.

649 Kim Ma Street, BaDinh District
Unit 210, 2nd Floor, V-Tower
118000 | Hanoi, Vietnam

+84 243 766 7800

Sales.Vietnam@tesa.com

08/2023

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

tesa tape Asia Pacific Pte. Ltd.
Phone: +65 6697 9888
tesa.com/company/locations

tesa.com