

tesa[®] surface protection solutions

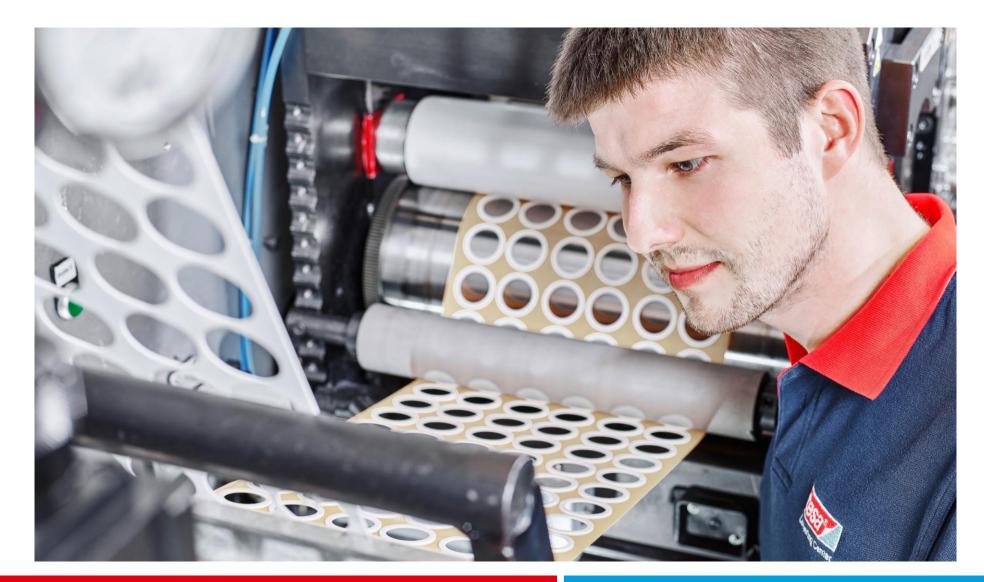
Global converter markets

Product excellence and market intimacy across industries



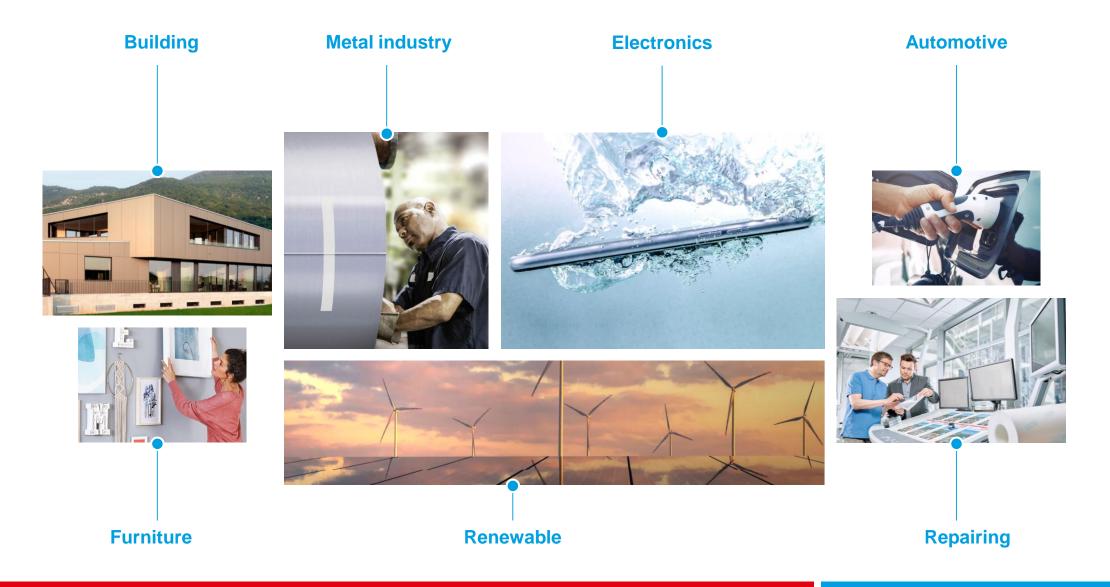
By partnering with tesa as a converter partner, you have decided to join our network of strategic business allies. Your company is recognized as a strong and proficient resource and working together we believe we can mutually grow our businesses.

As a converter partner, your company has access to the consistent high quality of the extended tesa[®] assortment as well as to the expertise and support of our sales, supply chain, marketing, customer support, and Customer Solution Center teams.



Converter assortment and product solutions across industries



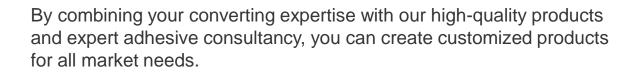


From sketch to reality



Even with the most demanding requirements, we support you in finding the best possible solution. We know converting involves a variety of processes, such as:

Die-cutting	Punching	Lasering	Slitting
Rewinding	Laminating	Printing	Spooling









Product excellence

Access to the broadest tesa product portfolio, including a selection of 60+ products handpicked for our converter partners, on which we guarantee quick sampling in different formats (mini-log, A4 sheets) and minimum order quantity of one log roll on most standard orders.

Expert support

Our sales personnel and converter experts are there to assist you with any customer request. Technical experts at tesa Customer Solution Center also offer on-site and remote support and evaluation of your individual application under laboratory conditions.

Testing and validation

Our local experts and engineers will support you onsite and remotely, resorting to state-of-the-art equipment to perform:

- Comparative tests with competitor products
- Simulations under a wide range of environmental conditions
- · Customized tests with customer substrates



tesa[®] temporary surface protection solutions

One of the most demanding and challenging adhesive sciences:

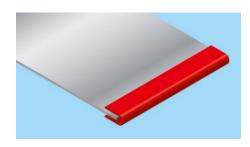
- 1. Surface protection tapes must be removed without leaving adhesive residues and without causing staining and discoloration over many months.
- 2. Surface protection tapes must adhere reliably without lifting off during processing, transporting, storing, and assembling the parts.
- 3. Surface protection tapes must protect the parts from UV, water, chemicals, mechanical treatments and gravel.



Railway and aviation



Automotive interior



Metal industry



Automotive exterior



Appliances

tesa[®] temporary surface protection solutions Converter market solutions



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	tesa® 5053x series	tesa® 7133	tesa® 4848	tesa® 50551	tesa® 51136	tesa® 51134	tesa® 51132	tesa® 66514	tesa® 60428	tesa® 64280	tesa® 64250	tesa® 4289	tesa® 4414	tesa® 50650	tesa® 4432	tesa [®] 4434	tesa® 4334
Backing type	Polyolefin	Polypropylene	Polyethylene	Polyethylene	Polyethylene	Polyethylene	Polyethylene	PET	PVC	PET	MOPP	MOPP	Polyethylene	PET	Flat paper	Paper	Flat paper
Color	White	Blue	Transparent	Transparent	Green translucent	Transparent	Transparent	Transpare nt	Red	Blue translucent	Blue translucent	Yellow	Blue translucent	Blue translucent	Yellow	Yellow	Yellow
Adhesive type	EVA	Rubber	Acrylic	Acrylic	Acrylic	Acrylic	Acrylic	Acrylic	Rubber	Rubber	Acrylic	Rubber	Acrylic	Silicone	Rubber	Rubber	Acrylic
Thickness total [µm]	71/61	80	48	70	105	84	85	40	60	60	79	144	150	55	330	670	90
Adhesion to steel [N/cm]	0.9	1.8	0.8	1.2	2.4	2.4	2.8	0.1	0.15	4.0	3.0	5.0	2.2	3.3	8.0	3.5	1.8
Log roll width in mm	1,400	1,200	1,000	1,500	1,450	980	1,450	1,250	980	1,650	1,300	1,650	1,450	1,280	1,020	950	1,230
Best protection for	Auto exterior body paints	Sensitive surfaces, automotive interior	Anodized aluminum trims	Painted surfaces and wheel rim protection	PP, ABS, and textile automotive interior parts	PP, ABS, and textile, appliance and TV frames	PP, ABS, and textile, automotive interior parts	LCD display hard lenses, glass, ABS, PC	Steel, paint where low adhesion is required	Appliance industry, glass shelves, ABS, PS, PC, steel, PP	Auto interior parts, appliances	Auto interior parts and parts fixation	Coated surfaces such as aluminum, metal, glass	Chrome trims, appliance parts and carbon fiber	Stencil for sandblasting glass, mirrors, and stone with the durability of 6 sec./4 bar	Stencil material for sandblast- ing on stones for covering serial plates during rust removal on steel	Auto leather trims and delicate surfaces
Special feature	12 months' UV resistance, OEM approved, tesa $^{\otimes}$ 50530 = 71 µm tesa $^{\otimes}$ 50535 = 61 µm	Scratch resistant, temperature resistance of up to 120°C	Versatile for indoor and outdoor applications in automotive and paint applications	6 months' UV resistance, high transparency	Conformable, stronger PV2 adhesive	Conformable	Conformable for rougher surfaces	Optically clear, easy-to- peel-off PET release liner	High mechanical and chemical resistance. UV resistant for 3 months	tesa® 64280 is highly tear resistant if compared to regular, PET-based tapes	Strong and conformable <u>Assortment</u> <u>family</u>	Low elongation and good abrasion resistance <u>Assortment</u> <u>family</u>	6 month UV resistant, high tack adhesive	No staining Assortment family	Shatterproof safety tape on mirror back sides, meets require- ments according to DIN EN 12600	Extremely high gravel resistance	No discolor- ation depending on color pigments and top coating Link?

Assortment family



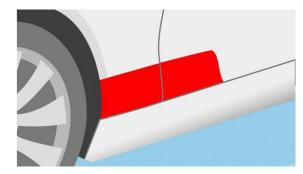
tesa[®] permanent surface protection solutions

Fulfilling most demanding requirements for long-term durability:

- 1. Permanent surface protection tapes need to protect delicate visible surfaces against punctual external forces.
- 2. Permanent surface protection tapes need to be highly durable and withstand shoving forces from multiple angles to ensure safety regulations.
- 3. Permanent surface protection tapes need to protect invisible parts during wear and tear from forces and environmental impacts acting on the surface or between parts like stone chipping, abrasion from relative movements, and of course the unpleasant noises occurring from the latter.



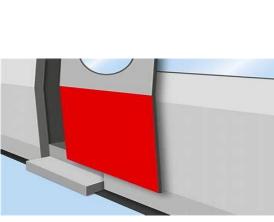
Corrosion protection



Stone chip protection



Scratch protection



Scratch and impact protection



Erosion protection

tesa[®] Permanent Surface Protection Solutions



Converter market solutions

		ENEW								
	tesa [®] 52994	tesa [®] 52995	tesa [®] 51206	tesa [®] 51207	tesa [®] 51217	tesa [®] 60303	tesa [®] 60307	tesa [®] 60310	tesa [®] 50118 PV2	tesa [®] 60950
Backing type	Aliphatic Polyurethane	Top Coated Aliphatic Polyurethane	PE-UHMW	PE-UHMW	PE-UHMW	PET Fleece	PET Fleece	PET Velour	PET Fleece	PVC film coated with mineral particles
Color	Optically Clear	Optically Clear	Translucent	Translucent	Black	Black	Black	Black	White	Black
Adhesive type	Pure Acrylic	Pure Acrylic	Pure Acrylic	Pure Acrylic	Pure Acrylic	Acrylic	Acrylic	Acrylic	Acrylic	Acrylic
Thickness total [µm]	360, 260 and 187	330 and 280	114	114	154	230	480	525	540	720
Adhesion to steel [N/cm]	> 7	>13,5	4.3	4.3	4.3	>4.0	>3	>3	4.0	5.8
Log roll width in mm	1.245	1.245	510	510	510	1.140	1.140	1.140	1.150	1.000
Best protection for	Glossy Paints	Glossy Paints	Painted Surfaces	Painted Surfaces	Painted Surfaces	Buzz, Squeak and Rattle	Buzz, Squeak and Rattle	Buzz, Squeak and Rattle	Buzz, Squeak and Rattle Noise damping (LV312) C	Applications in which a secure grip underfoot is required
Special feature	tesa® 52994 is a single sided transparent protection film with a clear gloss aliphatic polyurethan backing without topcoat, a permanent acrylic adhesive and a matt polyester liner. Applied to permanently protect sensitive surfaces against strong mechanical and environmental forces. It's longterm UV- resistance ensures that the film appearance does not turn yellow and remains invisible throughout the vehicle's lifetime.	tesa [®] 52995 is a single sided transparent protection film with a clear gloss aliphatic polyurethan backing and a high gloss topcoat , a permanent acrylic adhesive and a matt polyester liner. Applied to permanently protect sensitive surfaces against strong mechanical and environmental forces. It's longterm UV- resistance ensures that the film appearance does not turn yellow and remains invisible throughout the vehicle's lifetime.	tesa® 51206 is an ageing and abrasion resistant high density PE tape with very good adhesive power. Features: Translucency assists the application in the visible area Self-lubricating tape with very good gliding properties reduces wear and friction High energy absorption capacity even at high stress level	Like tesa® 51206 but designed for exterior applications with very good UV resistance: > 1000 h WOM Florida test	Like tesa[®] 51206 but thicker and in color black	Excellent damping and abrasion protection properties • Low VOC (according to GB 27630) • No critical substances detectable • Very high peel resistance on irregular, rough and nonpolar surfaces • Very high shear strength • Tear resistant Suitable for automatic tape dispensers	Excellent damping and abrasion protection properties • Low VOC (according to GB 27630) • No critical substances detectable • Very high peel resistance on irregular, rough and nonpolar surfaces • Very high shear strength • Tear resistant Suitable for automatic tape dispensers	Excellent damping and abrasion protection properties • Low VOC (according to GB 27630) • No critical substances detectable • Very high peel resistance on irregular, rough and nonpolar surfaces • Very high shear strength • Tear resistant Suitable for automatic tape dispensers	Excellent damping and abrasion protection properties • Low VOC (according to GB 27630) • No critical substances detectable • Very high peel resistance on irregular, rough and nonpolar surfaces • Very high shear strength • Tear resistant Suitable for automatic tape dispensers	Indoor and outdoor applications Assortment Folder

tesa[®] surface protection references

tesa

With our decades of experience, we will support you in your project to select, test, convert, and apply the right tesa product based on our technology building blocks and fundamental surface protection data pool.



Automotive

1. OEM paint	tesa [®] 5053x
2. Door sill	tesa [®] 7133
3. Door panel	tesa [®] 4289
4. Leather surfaces	tesa [®] 4334
5. Interior trims	tesa [®] 5113x
6. Permanent	
protection	tesa [®] 52994
7. Buzz, squeak,	
and rattle	tesa [®] 603xx



Aircraft, marine, railway

1. Aircraft galley	tesa® 5113x
2. Painted interiors	tesa® 5053x
3. Door fuselage	tesa [®] 7133
4. Interior trims	tesa [®] 50650
5. Assembly	tesa [®] 51134
6. Transportation	tesa® 5053x
7. Perm. protect.	tesa [®] 52994
8. Buzz, squeak,	
and rattle	tesa [®] 603xx



Metal

1. Edge protection	tesa [®] 4651
2. Coated surfaces	/tesa [®] 4414 4334
3. Powder coating	tesa [®] 50650 50600
4. Metal profiles	tesa [®] 60428
5. Sandblasting	/tesa [®] 4432 4434



Appliances

1.	Metal profiles	tesa® 64250
2.	Powder coating	tesa [®] 50650/ 50600
3.	Sandblasting	tesa [®] 4432/ 4434
4.	Buzz, Squeak,	
	and rattle	tesa [®] 603xx
1.	Glass protection	tesa [®] 4848
2.	Display protection	tesa [®] 66514



Certifications

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

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

Learn more about our company <u>www.tesa.com</u>





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.