

# Adhesive solutions

Enabling the future of the electronics industry 2022

# About us

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# Qualified experience and individual support

As a leading adhesive manufacturer in the electronics industry, we offer a wide range of customized adhesive tapes for smartphones, tablets, and other electronic devices. We work continuously to develop new products to better serve you and your customers in this fast-moving and innovative industry.

You and your suppliers are our priority. Our team of experts - from sales offices, R&D centers, and manufacturing facilities – is available globally to support our customers locally. Particularly, our Customer Solution Center with its technical experts is there to offer you the individual support you need. Our state-of-the-art facility with extensive equipment is at your disposal to find the adhesive solution for your needs.

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# Your complete partner

# Tapes for your success

Solutions that meet

your needs

# Solutions that go beyond tape

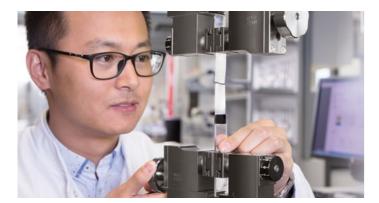
Every project comes with new and individual challenges. We overcome these challenges by partnering with you to create unique and specialized products that meet and exceed your customers' expectations. Our capability goes beyond tape, as we also offer a comprehensive technical product package.



#### Our labs and technical experts

With our extensive experience in adhesive technology, we have developed a large portfolio of adhesive products for electronics applications.

Our technical experts will support you throughout your entire product development process and help you find the optimal solution for your requirements.



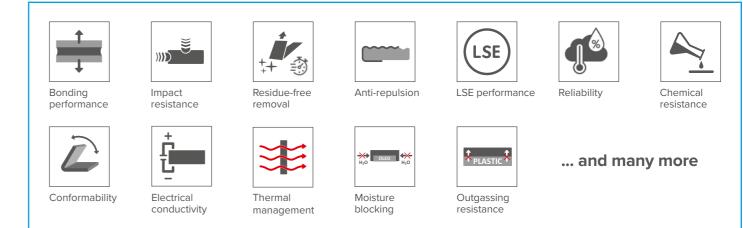
#### On-site support

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.

Our products have a proven track record in multiple applications and different devices over the last 20 years in the electronics industry. In this brochure we present an assortment of the most significant tapes from our portfolio. We divide them into the following categories:

- Mounting Solutions
- Functional Solutions
- Display Lamination Solutions

### Features of our tapes





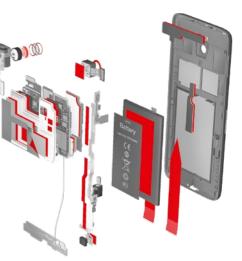
## Contact us

Our local experts and engineers are just a phone call away to support you with:

Process-simulation studies Assistance at your manufacturing site State-of-the-art testing equipment Tests under a wide range of environmental conditions Customized tests with customer substrates

Contact us and benefit from a strong partnership.





Tape solutions for smartphones

As each project has specific requirements, we offer tailored solutions to each application.

Our mission is to provide you with the best solution. Please contact our local representative to discuss this in detail.

# Our commitment to 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.



"Electronic equipment is complex. Intelligent solutions are necessary in order to make it more sustainable – for instance, in order to improve its recyclability. At tesa, we are aiming to play a leading role in this process. Our "Bond & Detach®" products demonstrate what that means in practice. They make it possible to easily remove the individual components of a smartphone – either for repair purposes or at the end of the phone's life – and to recycle them separately. At the same time, we would like to help extend the life of electronic equipment through our products so that items don't have to be disposed of so quickly."

Carsten Meyer-Rackwitz Corporate Vice President Business Unit Electronics

## **Development of sustainable solutions**

Reducing a product's carbon footprint while maintaining the same level of quality is a core product development issue for us. In the future, we intend to use an increased volume of raw materials that are more environmentally and climate friendly than conventional raw materials. Here, we evaluate the use of different raw materials. In particular, the use of recycled and bio-based raw materials is currently a key concern for us. For example, with our new bio-based PET tapes, which use 50% recycled materials for the PET backing and whose adhesive consists of more than 70% bio-based carbon content.

At the same time, we avoid scarce raw materials or raw materials whose extraction places an excessive burden on the environment. We are also looking to make further reductions in our use of solvents during the production process.

# Smart products for sustainability

We aim to help our customers work toward a circular economy. Our tesa® Bond & Detach products, for example, assist with this process. If modern smartphones are no longer needed or are broken, it is generally difficult to take them apart. Our tesa® Bond & Detach products make it possible to

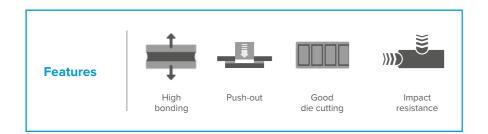




# High performance profile

Our high performance profile tapes are the spearhead of our film tapes assortment. All series in this category are characterized by superior bonding performance, which is The PET backings used in these series are very well suited expressed in peel adhesion, push-out and shear resistance,

and high impact resistance. These series are therefore used for demanding applications like lens and battery mounting. to being die-cut.

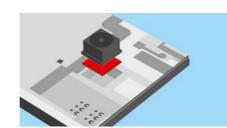


# Typical applications



Lens and touch-panel mounting

Battery mounting



Component mounting

## Assortment overview

	tesa® 613xx	tesa® 618xx	tesa® 6896x
Design			
Color	Transparent, black	Black	Transparent
Adhesive	Tackified acrylic	Modified acrylic	Specialty
Backing	PET	PET	PET
Special features	Push-out resistance, strong bonding	Push-out resistance, impact resistance, LSE performance	Strong bonding, easy activation, LSE performance
30 µm			0 68960
50 µm	0 61305 ● 61350		O 68962
100 µm	0 61360 ● 61365	● 61865	O 68964
125 μm 150 μm	0 61370 ● 61375		
150 µm	<ul><li>○ 61380</li><li>● 61385</li></ul>	● 61885	
200 µm	<ul><li>○ 61390</li><li>● 61395</li></ul>	● 61895	
230 µm	● 61345	● 61845	
250 μm	• 61325	● 61825	
300 µm	● 61315	● 61815	
Reference product	● 61365 ○ 61360	● 61865	O 68964
Peel adhesion [N/cm; SUS initial/ ultimate] Push-out	11.9/16.5	11.0/12.0	17.0/17.5
Push-out [N]	250	240	255
DuPont [J; xy/z]	0.5/0.2	0.7/0.3	0.7/0.6

O Transparent • Black

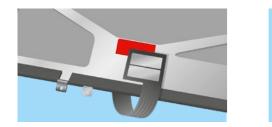


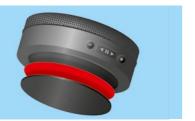
# Specialized performance profile

With this assortment, we created double-sided mounting tapes with unique adhesives focusing on the special requirements of certain applications in the electronics industry. Each series within this assortment focuses on a specific property needed in the market. In this section, you will find a selection of specialized film tapes. Our capabilities go beyond what is available here. Please contact our local representatives to discuss this further.



# Typical applications







Our specialized film tape solutions are suitable for applications with a high demand for a certain property like anti-repulsion, differential bonding performance, chemical resistance, reworkability, or light blocking. These tapes are suitable for a wide range of applications, from mounting (e.g., FPC, antenna, keypad, sensor) to processing and packaging applications.

### Assortment overview

		tesa® <b>6693</b> x	tesa <sup>®</sup> 615xx	tesa® 612xx/6128x	tesa <sup>®</sup> 6881x	tesa® 885x	tesa® 6887x کې
Des	sign					The same and the same state	
Col	or	Transparent	Transparent	Black	Black	Translucent	Transparent
Adl	hesive	Tackified acrylic	Silicone/acrylic	Specialty	Tackified acrylic	Tackified acrylic	Bio-based acrylic
Bad	cking	PET	PET	PET	PET	Nonwoven	PCR PET
-	ecial tures	Repulsion resistance, easy activation	Differential design for silicone substrates LSE performance	Chemical resistance, impact resistance	LSE performance, high tack, impact resistance	Temperature resistance	Bio-based PET solution, high bondin
	30 µm	O 66930	O 61526			O 8851	O 68873
200	50 µm	O 66932	O 61532	● 61250/61282		0 8853 0 8857	O 68875
	100 µm	O 66934	0 61528	● 61210/61284	• 68814	O 8854	O 68877
-	140 µm		0 61529				
	<b>150</b> μm			● 61215/61286			
	200 µm		O 61520	● 61220/61287	● 68817		
	250 µm			● 61225/61288			
9	Reference product	O 66934	O 61528	• 61210	● 68814	O 8854	O 68877
гоаист репоглансе	Peel adhesion [N/cm; SUS initial/ ultimate]	10.7/11.6	Si: 4.0/4.4 Ac: 10.7/12.6	12.4/13.2	13.5/14.0	8.3/9.5	12.3/13.7
	Push-out [N]	143	Upon request	260	130	Upon request	Upon request
	DuPont [J; xy/z]	0.7/0.2	Upon request	1.1/0.7	0.9/0.4	Upon request	Upon request

		tesa <sup>®</sup> 6693x	tesa® 615xx	tesa® 612xx/6128x	tesa® <b>6881</b> x	tesa® 885x	tesa® 6887x
De	sign					Course to a the second	
Co	lor	Transparent	Transparent	Black	Black	Translucent	Transparent
Ad	lhesive	Tackified acrylic	Silicone/acrylic	Specialty	Tackified acrylic	Tackified acrylic	Bio-based acrylic
Ba	cking	PET	PET	PET	PET	Nonwoven	PCR PET
-	ecial atures	Repulsion resistance, easy activation	Differential design for silicone substrates LSE performance	Chemical resistance, impact resistance	LSE performance, high tack, impact resistance	Temperature resistance	Bio-based PET solution, high bonding
	30 µm	O 66930	O 61526			O 8851	O 68873
less	50 µm	O 66932	O 61532	● 61250/61282		0 8853 0 8857	O 68875
Thickness	100 µm	O 66934	O 61528	● 61210/61284	• 68814	O 8854	O 68877
-	140 µm		O 61529				
	<b>150</b> μm			● 61215/61286			
	200 µm		O 61520	● 61220/61287	● 68817		
	250 μm			● 61225/61288			
ce	Reference product	O 66934	O 61528	• 61210	● 68814	O 8854	O 68877
ct perfor	Peel adhesion [N/cm; SUS initial/ ultimate]	10.7/11.6	Si: 4.0/4.4 Ac: 10.7/12.6	12.4/13.2	13.5/14.0	8.3/9.5	12.3/13.7
Pro	Push-out [N]	143	Upon request	260	130	Upon request	Upon request
	DuPont [J; xy/z]	0.7/0.2	Upon request	1.1/0.7	0.9/0.4	Upon request	Upon request
						O Transpare	nt • Black • Translucent

Our sustainable solutions

We are continuously increasing our range of sustainable products to help our customers achieve their own sustainability goals. We are willing to offer products that have the lowest possible impact on the environment throughout their life cycle. The use of recycled and bio-based raw materials plays a particularly important role here. In our product development, we focus on the design and integration of various sustainable building blocks in order to provide our customers with the greatest possible flexibility in the selection of products. Reach out to us, learn more about this exciting development, and become part of it!







# Well-balanced performance profile

tesa<sup>®</sup> balanced-performance film tapes are a proven solution for mounting and lamination applications in the electronics industry. The balanced adhesive provides very good tack and bonding performance for many general applications. The PET backing enables easy handling of the tape



during converting and manufacturing processes. With thicknesses from 5  $\mu$ m to 250  $\mu$ m, this assortment offers you a broad range and excellent flexibility.

# **Typical applications**



This assortment is widely used in the electronics industry for versatile mounting and lamination applications as well as for cushioning and gasket material bonding.

### Assortment overview

		tesa® 49xx	tesa® 519xx
Desi	gn		
Colo	r	Transparent	Black
Adhe	esive	Tackified acrylic	Tackified acrylic
Back	ting	PET	PET
!	5 µm	0 4912	
:	30 µm	0 4983	• 51983
!	50 µm	o 4972	• 51972
:	80 µm	O 4980	• 51980
0 1	100 µm	O 4982	• 51982
	125 µm	O 4928	• 51928
	140 µm	O 4942	
	160 µm	O 4967	● 51967
:	200 µm	O 4965	• 51965
:	250 μm	O 4926	• 51926
1	Reference product	O 4982	● 51982
	Peel adhesion [N/cm; SUS initial/ ultimate]	11.0/11.7	11.0/11.7
	Push-out [N]	230	230
	DuPont [J; xy/z]	0.5/0.2	0.5/0.2

# Can't find the right solution?

We have more options available in our portfolio, and by partnering with you we can create unique and specialized products that meet your individual demands. Simply write to us or contact your local representative: electronics@tesa.com

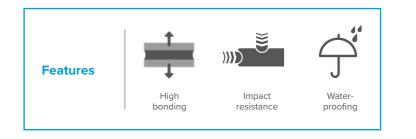


# Acrylic foam tapes

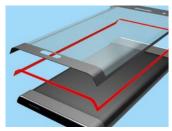
# For applications with extreme requirements

Our acrylic foam tape assortment is especially designed for demanding applications in the electronics industry and is distinguished by its very special bonding capabilities. The high bonding performance is possible due to the tape's viscoelasticity: elastic and viscous characteristics provide inner strength and relax mechanical stresses. The use of

highly innovative technologies and special acrylic adhesive systems together with the viscoelastic nature of acrylic foams create multiple benefits like impact resistance, high bonding strength, and waterproofing for electronic devices for the entire life cycle of the product.



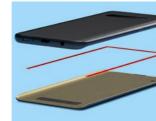
Typical applications



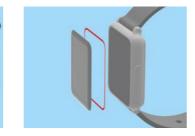


Lens mounting

Back cover mounting



Display bottom



Mounting in wearables devices

# Assortment overview

		tesa® <b>754xx/756xx</b>	tesa® 759xx	tesa <sup>®</sup> 758xx	tesa® <b>757</b> xx	tesa® 7017x
De	sign	- Interestation	and a second statements		and and an experimental	- Internet Contraction
Co	or	Black	Black	Black	Black, white	Black
٩d	hesive	Modified acrylic	Acrylic	Acrylic	Modified acrylic	Modified acrylic
3a	cking	-	PET	-	PET	PET
	ecial tures	Excellent bonding, conformability	Chemical resistance, reworkability	Chemical resistance, excellent shock resistance	Good wetting, reworkability	Anti-stretching, easy activation
	50 µm	• 75405		• 75805		
	100 µm	• 75410		● 75810	● 75710	
	150 μm	• 75415		• 75815	• 75715 o 75742	
600	200 µm	● 75620	● 75920	● 75820	• 75720 o 75743	● 70172
	250 µm	• 75625	• 75925		• 75725 • 75745	
	300 µm	• 75630	• 75930		• 75730	● 70174
	350 µm	• 75635				
	400 μm	• 75640				
	450 μm	● 75645				
	Reference product	● 75620	● 75920	● 75820	• 75720	• 70172
Product performance	Peel adhesion [N/cm; SUS initial/ ultimate]	11.2/17.0	10.2/11.3	8.5/9.6	12.3/13.5	14.0/15.0
roauc	Push-out [N]	220	160	140	205	210

• \* Assessment is done only in relation to other products of this assortment

1.3/1.0

1.2/0.9

•••

Your partner for codevelopment

DuPont

[J; xy/z] Remov-

ability\*

We have more options available in our portfolio, and by partnering with you we can create unique and specialized products that meet your individual demands Simply write to us or contact your local representative: electronics@tesa.com

1.5/1.0

•

14 Mounting solutions – Impact-resistant foam tapes



1.4/1.0

•••

O White 

Black

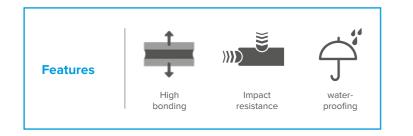
0.9/0.8

...



# For challenging applications

PE foam tapes have long proven their value to the electronics industry. Certain properties such as impact resistance, bonding strength, and waterproofing are offered by all series in our PE foam range. In this section we present a selection of our PE foam solutions focusing on different series' specific performance features. We believe these functionalities are strongly needed in the market for certain applications. If you require more information than what we have provided here, please contact your local representative.



# **Typical applications**



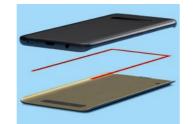




Lens mounting

Back cover mounting

Camera lens mounting



Display bottom mounting

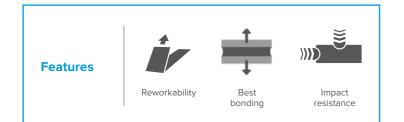
# Assortment overview

		tesa® 666xx	tesa® 668xx	tesa® 6262x	tesa® <b>6264</b> x	tesa® 6698x	tesa® 628xx
-							
Jes	sign	And Provide State	1000 1000	A STATE OF A STATE	And a state	And the second second	A CONTRACTOR OF
Col	or	Black	Black, white	Black	Black	Black	Black
Adł	nesive	Tackified acrylic	Modified acrylic	Tackified acrylic	Tackified acrylic	Acrylic	Tackified acryl
Bac	cking	PE foam	PE foam	PE foam	PE foam with PET reinforcement	PE foam	PE foam
	ecial tures	Best shear resistance, repulsion resistance	Best impact resistance, repulsion resistance	Best bonding, conformability	Good die cuttability, balanced property profile	Chemical resistance, repulsion resistance	Best repulsior resistance
	<b>150</b> μm		• 66822				
	200 µm	• 66624	● 66824	• 62624		• 66984	● 62864
200	<b>250</b> μm	• 66625	● 66825 ● 66865	• 62625	● 62645	● 66985	• 62865
Inickness	300 µm	● 66626	● 66826 ● 66866	● 62626	● 62646	● 66986	● 62866
	350 µm	● 66627	● 66829				● 62867
	<b>400</b> μm		● 66828				
	Reference product	● 66626	● 66826	● 62626	● 62646	● 66986	● 62866
	Peel adhesion SUS	10.0/12.2	12.5/14.5	13.0/16.0	10.0/13.5	7.8/8.5	7.6/11.5
	[N/cm; initial/ ultimate] PC	11.0/14.3	12.5/16.0	15.0/16.0	11.0/15.5	9.2/15.5	4.8/10.9
heilo	Push-out [N]	248	252	180	180	252	226
Lound	DuPont [J; xy/z]	0.85/0.74	0.88/0.77	0.48/0.42	0.45/0.41	0.81/0.88	0.72/0.70
L	Compression force at 25% [kPa]	785	515	200	315	790	835
	Rework- ability*	••••	••••	•	••	••••	••••
	Anti-repulsion*	••••	••••	•	•	••••	

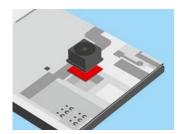


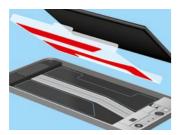
# For improved reworkability

These products focus on excellent reworkability, which is provided by specific, tailor-made adhesive designs. Additionally, this series, like the other foam assortments, offers excellent impact resistance and bonding performance.



# **Typical applications**







Battery wrapping

Battery mounting



Back cover mounting

# Assortment overview

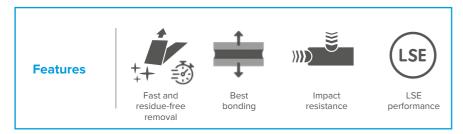
		tesa® 761xx	tesa® 471x	tesa® 473x
Des	ign	- HEVE COLORED AND AND AND AND AND AND AND AND AND AN	and a second second	
Colo	or	Black	Translucent white	Translucent white
Adh	esive	Synthetic rubber	Specialty	Structured specialty
Bac	king	PET	PU	-
Rem	noval process	Fast and residue-free removal at elevated temperatures	Splittable design, removable by solvents	Structured surface, residue-free removable by solvents
Spe feat	cial ures	Quick bonding, × LSE performance	Removable by solvents	Residue-free removal, removable by solvents
	50 µm	● 76105	O 4715	0 4735
	80 µm	• 76108	O 4718	0 4738
	100 µm	● 76110	o 4710	
Inickness	150 μm	● 76115		
	200 µm	• 76120		
	<b>250</b> μm	• 76125		
	300 µm	• 76130		
ao	Reference product	● 76108	O 4718	O 4738
Product performance	Peel adhesion [N/cm; SUS initial/ ultimate]	7.0/7.0	7.0	6.5
	Push-out [N]	230	230	230
	DuPont [J; xy/z]	0.7/0.6	0.7/0.6	0.7/0.8



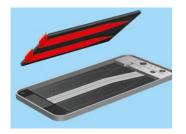
# Stretch-release tapes for residue-free removability

Our Bond & Detach<sup>®</sup> solutions have revolutionized the removability of adhesives. This tape enables the permanent mounting of components with the option of removing them without residues. Bond & Detach<sup>®</sup> uses a unique adhesive technology for demanding bonding applications, that provides the option of being removed residue-free by stretching.

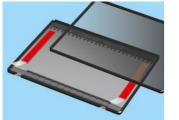
The patented technology was developed by tesa and offers the possibility of simple and secure debonding during the entire product life cycle – from production to end of life. It can also be used for temporary fixation during production processes or transportation. In addition, the whole assortment provides good impact resistance and bonding strength, even on LSE substrates.



# **Typical applications**



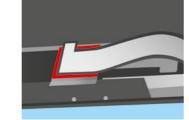
Battery mounting in mobile devices



# Mounting of high-value or critical components



Removable mounting of devices or accessories



Temporary fixation of components

# Assortment overview

		tesa® 704xx/703xx/706xx	tesa <sup>⊗</sup> 672xx	tesa® 648xx	tesa® 705xx
Desig	n				
Color		White, transparent, black	Translucent white	White	White
Adhes	sive	Synthetic rubber	Synthetic rubber	Synthetic rubber	Synthetic rubber
Backi	ng	-	PU	Specialty	Specialty
Specia featur		Best bonding, light blocking	Very good impact resistance	Excellent impact and tear resistance	Anti-repulsion and shear resistanc at elevated temperatures
8	0 μm		0 67208		
10	00 μm	<ul><li>○ 70410</li><li>● 70610</li></ul>	O 67210	O 64810	
1	50 µm	<ul><li>○ 70315</li><li>○ 70415</li><li>● 70615</li></ul>	0 67215	0 64815 0 64816	
2	00 μm	o 70420 o 70620		0 64820	
2	50 μm	o 70425 ● 70625		0 64825	0 70525
3	00 μm	<ul><li>○ 70430</li><li>● 70630</li></ul>		0 64830	
3	50 μm	○ 70435 ● 70635			
	00 μm	<ul><li>○ 70440</li><li>● 70640</li></ul>			
5	600 μm	<ul><li>○ 70350</li><li>● 70650</li></ul>			0 70550
6	50 μm	o 70465 ● 70665			
8	:00 μm	o 70480 ● 70680	X		
10	000 μm	o 70499 ● 70699			
1	300 μm	• 70697			
	deference roduct	<ul><li>○ 70415</li><li>○ 70315</li><li>● 70615</li></ul>	0 67215	O 64815	o 70525*
e P	eel SUS	13.0/13.0	9.0/9.0	11.0/11.0	13.0/13.0
	dhesion N/cm; PE nitial/	7.0/7.0	6.0/6.0	8.0/8.0	9.0/9.0
å u	Itial/ Iti- Black nate] battery pouch	8.0/8.0	7.0/7.0	8.0/8.0	Upon request
	J; xy/z]	0.7/0.3	1.0/0.7	1.1/0.8	1.0/0.7
Т	umbler cycles]	Upon request	400	>500	Upon request
R	emoving force N/cm]	4.0	5.0	4.0	6.0

Deviduing unickness

# Structural bonding solutions

# The best reliability for the toughest demands

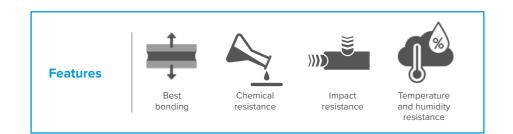
tesa® structural bonding solutions provide high structural bonding performance to a wide variety of substrates. They withstand the harshest conditions by combining outstanding chemical and aging resistance. The processing of these adhesive systems is simplified due to excellent die cuttability, immediate handling stability after activation, and low oozing.

### Heat-activated films

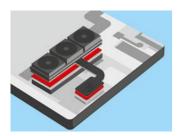
tesa® HAF and tesa® XPU are thermosetting adhesive systems. An irreversible cross-linking reaction is initiated by heat and pressure starting at temperatures above 110°C, resulting in extremely strong bonds.

### Low-temperature reactive films

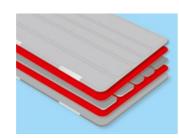
Our low-temperature reactive films tesa® LTR and tesa® LTC have been designed for activation at moderate temperatures. The cross-linking starts at a bond-line temperature above 75°C.

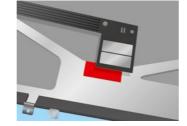


# **Typical applications**









Component mounting

Lens and back cover mounting

Soft goods and accessories

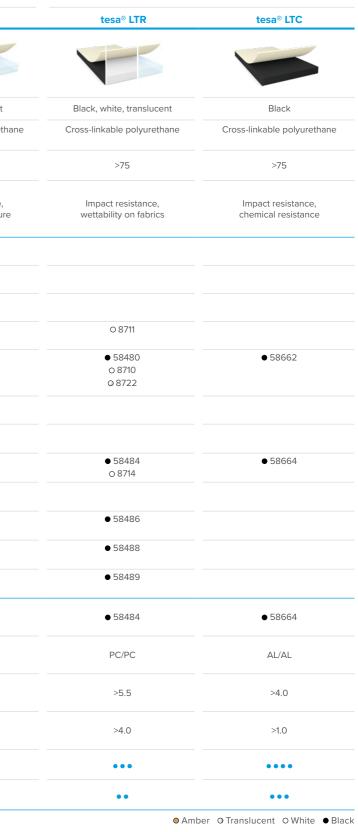
FPC bonding

# Assortment overview

		Heat-activa	ated films
		tesa <sup>®</sup> HAF	tesa® XPU
Desig	n		
Color		Black, amber	Black, translucen
Adhes	sive	Nitrile rubber/phenolic resin	Cross-linkable polyure
Activa tempe	ation erature [°C]	>120	>110
Specia featur		Temperature resistance, chemical resistance	Impact resistance low bonding pressu
	10 µm	● 58469	
	20 µm	• 58477	
	25 µm		• 58701 © 8701
	30 µm	• 58471 • 8471	
رم ا	50 µm	● 58470	• 58702 • 8702
Thickness	60 µm	● 8472	
Ē	80 µm	• 58473 • 8473	
	100 µm	<ul><li>58474</li><li>8474</li></ul>	• 58704 • 8704
	125 µm	• 58475 • 8475	
	150 μm	<ul><li>58476</li><li>8476</li></ul>	• 58706 • 8706
	200 µm	● 58478 ● 8478	• 58708 • 8708
	300 µm		
	Reference product	● 58474	● 58704
nce	Reference substrate	SUS/SUS	AL/PC
oerformai	Push-out [MPa]	>5.5	>4.0
Product performance	DuPont [J; xy/z]	>0.5	>3.5
-	Reliability*	••••	•••
	Chemical resistance*	••••	••

\* Assessment is done only in relation to other products of this assortment

22 Mounting solutions – Structural bonding solutions



#### Low-temperature reactive films

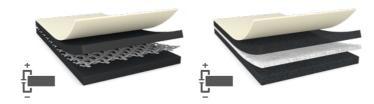
# Double-sided electrically conductive tapes

# For applications requiring grounding

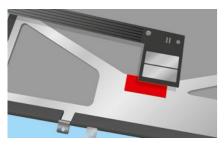
By offering a broad assortment of filled acrylic adhesive systems, with a balance between electrical conductivity and adhesive properties, we are able to provide the best solution for your requirements. Simply decide what is the most important for your application: bonding performance, conductivity, or a balance of both.

Our double-sided tapes are available with two different backings. The woven backing offers a higher tear resistance, very good dimensional stability, and better reworkability, while the nonwoven backing provides faster wetting, excellent conformability, and very good die cuttability.

# Features

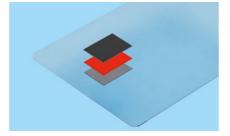


# **Typical applications**



FPC grounding

FPC on SUS



Component grounding

# Assortment overview

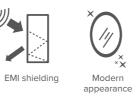
		tesa® 6025x/6026x	tesa® 6036x	tesa® 6037x	tesa® 6038x	tesa® EC HAF 5845x
De	sign		t.			
Co	lor	Gray	Gray	Black	Gray	Black
Ad	hesive	Conductive acrylic	Conductive acrylic	Conductive acrylic	Conductive acrylic	Conductive structural adhesive
Ba	cking	Woven, nonwoven	Woven	Woven, nonwoven	Woven, nonwoven	-
	ecial tures	Balanced properties	High bonding strength, high conductivity	Best conductivity	Best bonding strength, repulsion resistance	Heat-activated structural bonding film, temperature and humidity resistance
	17 µm	● 60267				
	25 µm	● 60261				
	30 µm			• 60371		• 58451
	35 µm	• 60260				
SS	50 µm	• 60262	● 60362	• 60372	● 60381 ● 60382	• 58452
Thickness	55 µm	● 60251 ● 60252				
	<b>70</b> μm	● 60253				
	100 µm	● 60254	● 60364	• 60374	● 60384 ● 60385	
	<b>150</b> μm	● 60255				
	200 µm	● 60256				
	250 μm	© 60257	X			
	Reference product	● 60252 ● 60262	● 60362	● 60372	● 60381 ● 60382	● 58452
Product performance	Peel adhesion [N/cm; initial/ SUS ultimate]	5.4/8.3	7.0/8.0	4.3/5.6	8.0/10.0	n.a.
Produ	Dynamic shear [N]	n.a.	n.a.	n.a.	n.a.	>7
	Contact resistance [mΩ.inch²]	0.05	0.01	0.01	0.06	0.05
	Surface resistance [mΩ.sq]	0.2	0.1	0.1	0.3	0.5
	Shielding effectiveness [-dB]	>50	>60	>50	>50	~40

# Single-sided electrically conductive tapes

For shielding and covering applications

Covering and shielding applications are broad and have different requirements for conductivity, adhesion, and design. Our single-sided ECT assortment meets the latest requirements for shielding and appearance.



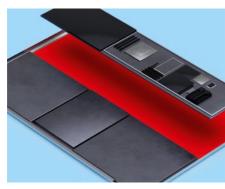


# Typical applications

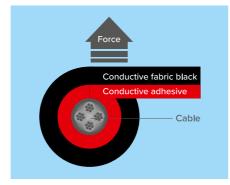


MLB covering





MLB shielding



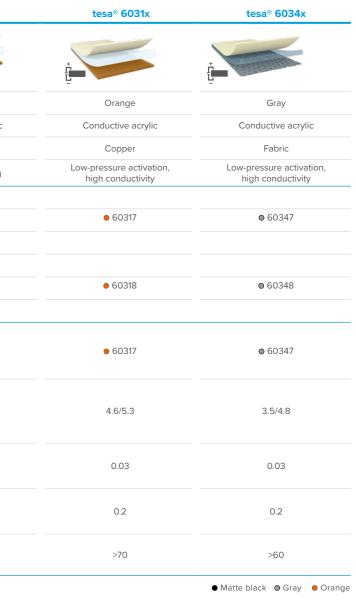
Wire wrapping

### Assortment overview

		tesa® 6023x	tesa® 6053x
De	sign		+
Co	lor	Matte black	Orange
Ad	hesive	Conductive acrylic	Conductive acrylic
Ba	cking	Fabric, copper	Copper
	ecial tures	Modern, matte black design	Excellent bonding
	25 µm	• 60231	
	30 µm		• 60537
Thickness	35 µm	• 60232	
Thick	45 µm	• 60238	
	50 µm		• 60538
	55 µm	• 60234	
	Reference product	● 60232	• 60537
Product performance	Peel adhesion [N/cm; SUS initial/ ultimate]	3.5/4.5	6.3/7.5
Product	Contact resistance [mΩ.inch <sup>2</sup> ]	0.05	0.05
	Surface resistance [mΩ.sq]	0.2	0.2
	Shielding effective- ness [-dB]	>50	>70

Didn't find what you were looking for?

We have more options available in our portfolio, and by partnering with you we can create unique and specialized products that meet your individual demands Simply write to us or contact your local representative: electronics@tesa.com

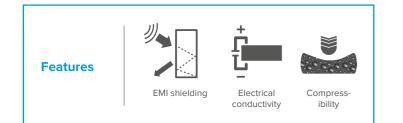




# Single-sided electrically conductive foam tapes

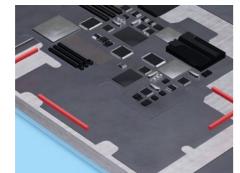
# For conductive gap filling

Our single-sided electrically conductive foam tapes can be used for shielding, grounding, and filling gaps. They will provide either outstanding conformability and recovery properties or very high abrasion resistance, depending on the foam material chosen. All series in this assortment have very good shock-absorbing and cushioning properties.



# **Typical applications**





FPC grounding

MLB grounding

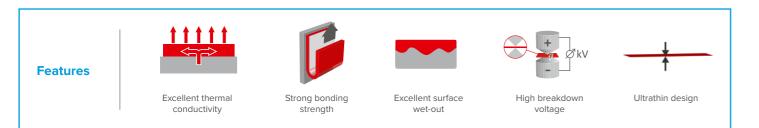
# Assortment overview

		tesa® 6021x	tesa® 6068x	tesa® 6024x	
Design Color Adhesive Backing				ţ.	
		Gray	Gray	Gray	
		Conductive acrylic	Conductive acrylic Ultrasoft foam	Conductive acrylic Gasket foam	
		Soft foam			
	ecial tures	Excellent electrical conductivity	Excellent compressibility	Abrasion resistance	
	200 µm	● 60213			
	300 µm	● 60214		• 60246	
2	500 μm		• 60685	• 60248	
	<b>700</b> μm		• 60687	● 60249	
	<b>1,000</b> μm		• 60688		
	1,500 μm	● 60217			
	<b>2,000</b> μm	● 60218			
	Reference product	● 60214	● 60685	● 60248	
	Peel adhesion [N/cm; SUS initial/ ultimate]	4.8/8.3	6.0/8.0	4.8/6.3	
	Contact resistance [mΩ.inch <sup>2</sup> ]	0.03	0.03	0.03	
	Surface resistance [mΩ.sq]	0.2	0.2	0.2	
	Shielding effective- ness [-dB]	>70	>60	>70	
	Compression force at 50% [N/cm <sup>2</sup> ]	<50	<6	<55	
	Recovery rate after 24h [%]	90	96	96	

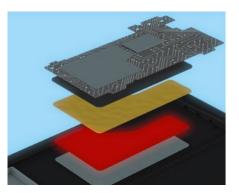


Keeping electronic devices cool

tesa<sup>®</sup> TMT 6074X provides superior thermal transfer performance with excellent bonding properties. It delivers very good surface wet-out on substrates due to the transfer tape design which helps to maximize the thermal transfer efficiency in electronic devices. The available thickness range starting from ultrathin 10  $\mu$ m ending at 100  $\mu$ m offers more flexibility in the device design.

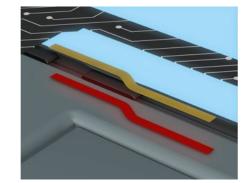


# **Typical applications**



Vapor chamber mounting

5G-antenna mounting

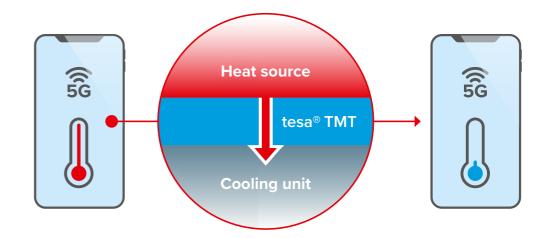


Heat pipe mounting

## Assortment overview

De	sign	
Co	lor	
Ba	cking	
	10 µm	
ness	30 µm	
Thickness	50 µm	
	100 µm	
	Reference product	
Product performance	Peel adhesion [N/cm; SUS initial/ ultimate]	
Product p	Thermal conductivity [W/m x K]	
	Wetting [%]	
	Break- down voltage [kV]	

# **Cooling scenario**



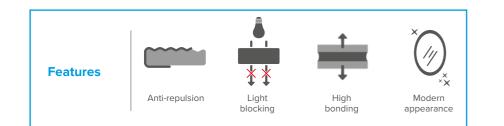
tesa® 6074x	
-	
White	
-	
0 60742	
O 60743	
O 60744	
O 60745	
o 60744	
5.0	
1.0	
84	
2.9	
	0.11/1 11

O White

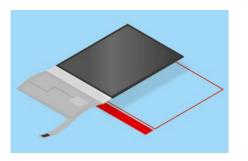


# More functionality for electronic devices

Electronic components are evolving one generation after the other, just like our solutions for covering tape. Our portfolio consists of polyester and polyimide tapes.



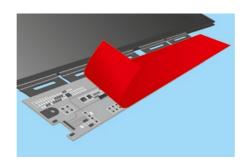
# **Typical applications**



Light blocking in LCD backlight unit



Protection of magnetic sheet and coil in wireless charging



Insulation on PCB and FPC

### Assortment overview

		tesa® <b>79</b> xx	tesa® 71xx
Design			
Co	lor	Matte black	Natural black
Ad	hesive	Black tackified acrylic	Black tackified acryli
Ba	cking	PET	PET
	ecial tures	Light blocking, anti-repulsion, dielectric insulation	Light blocking, anti-repulsion, high bonding
	5 µm	• 7905	
	8 µm	• 7908	
	10 µm	• 7910	
	20 µm	• 7920	
ness	30 µm	• 7930	
Thickness	50 µm	• 7950	• 7250
	60 µm		• 7160
	80 µm		• 7180
	100 µm		• 7100
	Reference product	● 7950	● 7250
rmance	Peel adhesion [N/cm; SUS initial/ ultimate]	4.0	4.2
Product performance	Light blocking [optical density]	5.7	>6
Proc	Insulation [kV, dielectric breakdown voltage]	5.5	5.0
	Anti-repulsion*		Upon request

\* Assessment is done only in relation to other products of this assortment

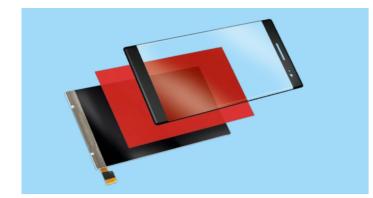




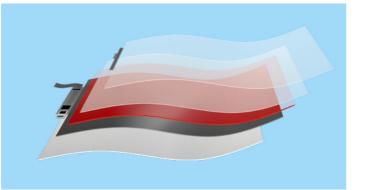
# Optically clear design with special features

Our comprehensive assortment is designed to provide a solution for every display application. All our materials are produced in a clean room and fulfill optically clear requirements, while also being environmentally stable and compatible with other display layers.

## Typical applications



Cover lens lamination

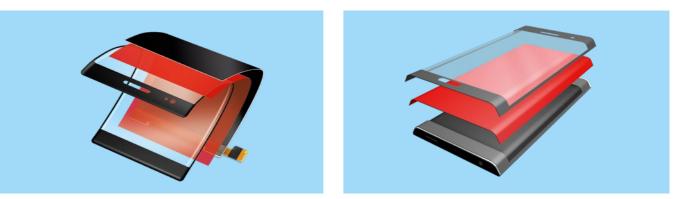


Touch panel lamination

# New OCA developments

In addition to our active assortment, we are developing new materials to support handheld devices with **foldable and curved-edge displays**, as well as backside **cushioning tape**. Furthermore, we are developing new **OCA tapes for the automotive industry**.

### Contact us to find out what's in our product development pipeline: electronics@tesa.com



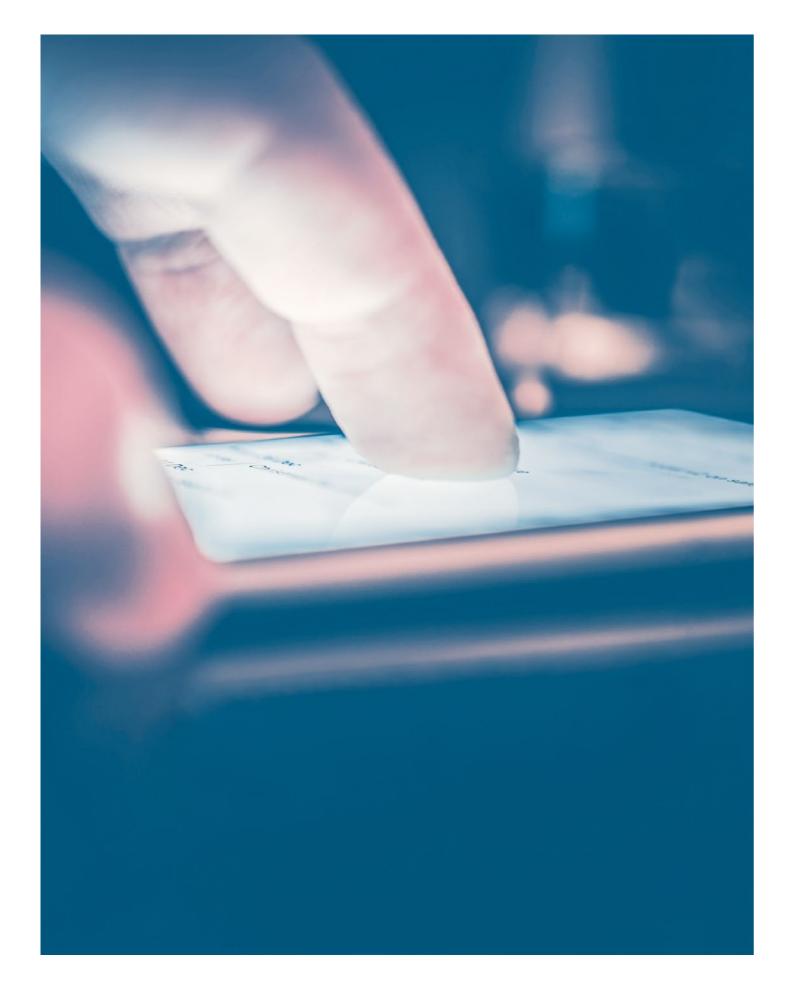
#### Flexible layers

Laminating flexible layers within a foldable or rollable display requires excellent peel adhesion and very good bending properties. For some special substrates like silver nanowire, an OCA tape with good compatibility is required. The first of such products will be available in May.



#### **Curved display**

Laminating a curved cover lens to a flexible OLED display requires low tack for easy lamination and good gap filling to cover ink steps. After UV curing, tapes need to show high bonding strength, resistance to repulsion forces, and very good reliability.



# Assortment overview

	tesa <sup>®</sup> 698xx	tesa® 696xx	tesa® 694xx	tesa® 6156x	tesa® <b>6153</b> x
Design		<			
Color	Transparent UV-curable	Transparent UV-curable	Transparent PSA	Transparent PSA	Beige PSA
Туре					
Special features	Outgassing resistant	Excellent gap filling	Lamination of films	Low dK, Iow WVTR	Moisture blocking
25 µm			O 69401	O 61562	61531
50 µm	O 69802		0 69402	O 61563	● 61533
<b>75</b> μm				O 61564	
<b>100</b> μm	0 69804	O 69604	O 69404		
100 μm 125 μm		O 69605	0 69405		
150 μm	O 69806	O 69606			
175 µm		O 69607			
200 µm	O 69808	O 69608			
300 µm	O 69812	0 69612			
Reference product	O 69804	O 69604	O 69404	O 61563*	● 61533*
Glass	10.2	11.1	6.9	5.0	6.5
adhesion PET	7.6	7.9	4.8	3.3	6.0
PC Itimate] Trans- mission [%] Haze [%]	9.8	10.0	7.0	4.7	6.8
Trans- mission [%]	>99	>99	>99	>99	n.a.
Haze [%]	<0.5	<0.5	<0.5	<0.5	n.a.
Refractive index	1.48	1.48	1.48	1.52	1.52
Gap filling [%]	30	25	10	<10	<10
Dielectric constant <sup>1</sup>	4.7	4.5	4.9	2.56	2.92
<b>G'</b> [kPa] <sup>2</sup>	250	130	107	550	Upon request
WVTR <sup>3</sup> [g/m <sup>2</sup> *day]	n.a.	n.a.	n.a.	0.9	0.45
Lag time <sup>4</sup> [h]	n.a.	n.a.	n.a.	25	10,000

\* Further thicknesses might be available upon request.

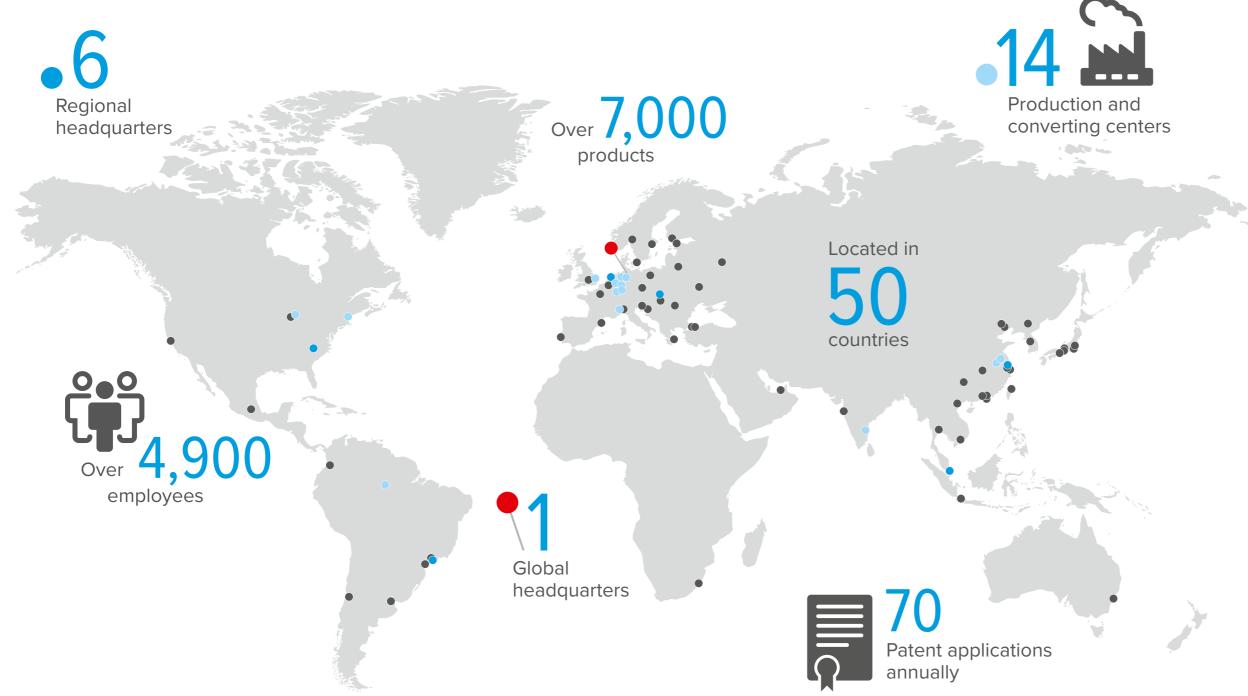
1100 kHz

<sup>2</sup> 25°C, 1 Hz

<sup>3</sup> 38°C, 90% rel. humidity, 1 mm
<sup>4</sup> 60°C, 90% rel. humidity, 6.5 mm gap
<sup>5</sup> WVTR after all getter is used up

O Transparent ● Beige

# **Global** presence



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.

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# 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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tesa.com