
Electrically Conductive Tape assortment
for Global Converter markets

tesa® ECT:

- Electrically Conductive Adhesive Tapes are used for sensitive applications such as automotive aerospace, defense, medical and telecom products.
- ECTs are designed with conductive pressure sensitive adhesives and a variety of different conductive backings
- ECTs are available as single sided tapes mainly for shielding and double sided for grounding
- ECTs for high-performance and interference-free electronics

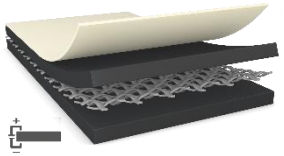
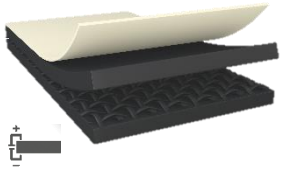
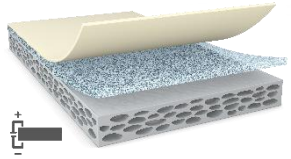
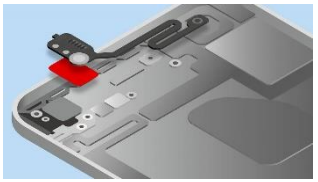
Connectivity

Autonomous Driving

eMobility

tesa® ELECTRICALLY CONDUCTIVE TAPES

Assortment overview

	Double-sided ECTs	Single-sided ECTs	Single-sided foam ECTs
			
Product group description	• For mounting applications that need **grounding and shielding properties** • Available series: Best Bonding, Best Conductivity, Balanced & High Performance • Available with **two different backings** to better meet your requirements	• For **covering and shielding** applications • Available with **two different backings**: Copper and Fabric • Matte-black color for modern designs	• For applications that need **Conductivity and Gap-filling Properties** • Available with **two different foams**: Soft sponge foam and Gasket foam
			
Application examples	FPC grounding, PCB grounding	EMI shielding, Conductive covering	Conductive gap-filling, EMI shielding Cushioning and grounding

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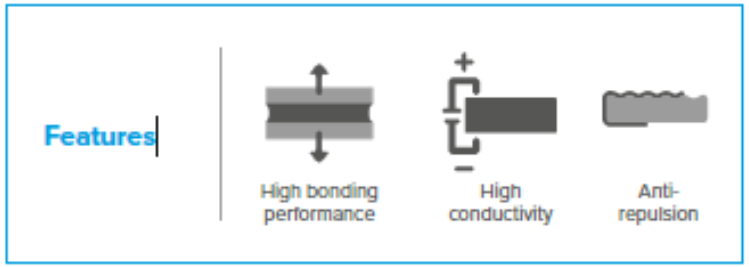
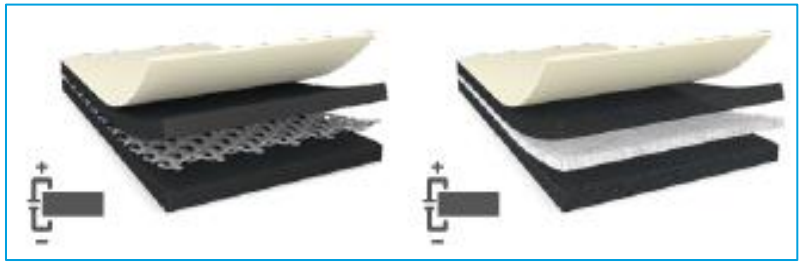
Double-sided solutions for grounding

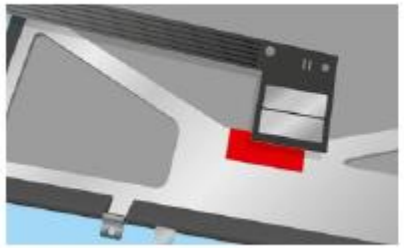
By offering a broad assortment of filled acrylic adhesive systems, with a balance between electrical conductivity and adhesive properties, we can provide the best solution for your requirements. Simply decide what is the most important for your application: bonding performance, conductivity, or a balance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

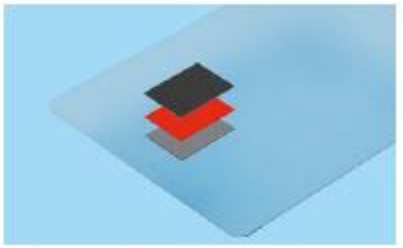


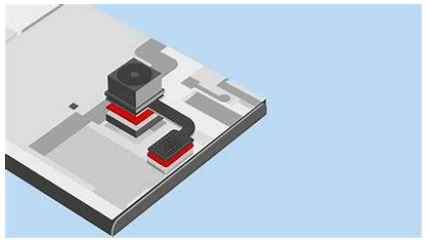


Typical applications


FPC grounding


FPC on SUS


Component grounding



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Single-sided solutions for EMI Shielding and Covering

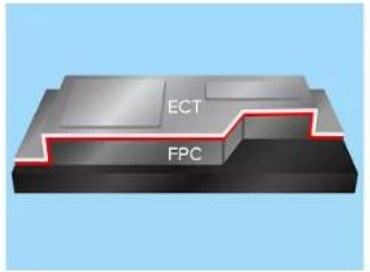
Not only in the automotive industry, stringent electromagnetic interference (EMI) requirements are necessary for safety but create design challenges for engineers as many components in power electronics systems produce nodes and high loops during high-frequency switching. These high values are the root causes of **EMI**.

One important application of EMI tapes is gasketing, where vents, thru-holes, or conduits are sealed with gaskets made from materials that offer high-shielding effectiveness. **Thick tapes** often include conductive non-wovens, wovens or foams or an electrically conductive or insulating adhesive that affixes to internal faces of enclosures around the gasketed punchouts.

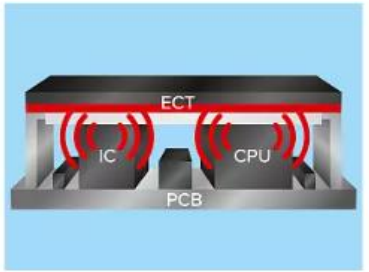
For shielding and covering applications

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.

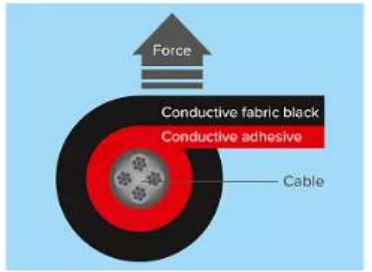
Features



FPC covering



Shielding can



Wire wrapping

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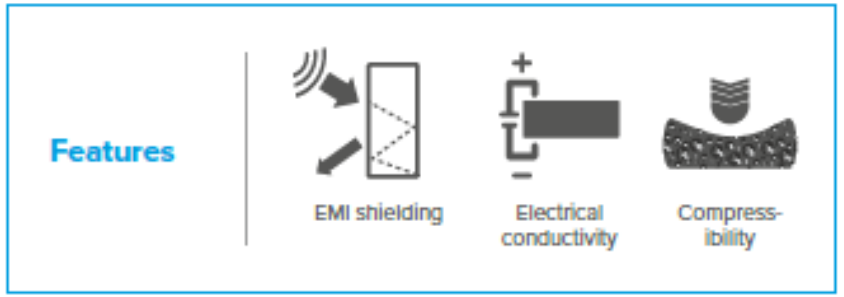
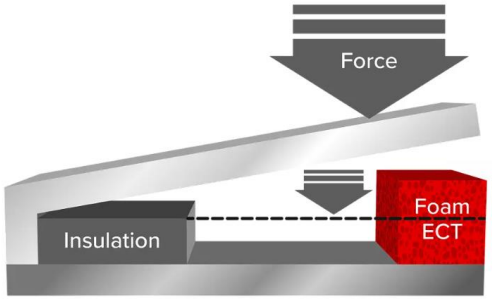
Single-sided foams for conductive Gap Filling

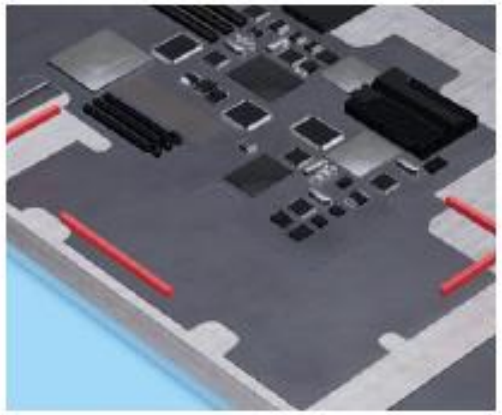
Our single-sided electrically conductive foam tapes can be used for shielding, grounding, and filling gaps. They will provide either outstanding conformability and recovery properties or very high abrasion resistance, depending on the foam material chosen. All series in this assortment have very good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





Typical applications

FPC grounding



MLB grounding

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ECTpedia

Contact resistance mΩ.inch2

Describes the electrical conductivity of the tape in Z direction.

The lower the contact resistance the higher the conductivity in Z direction.

Surface resistance mΩ.inch2

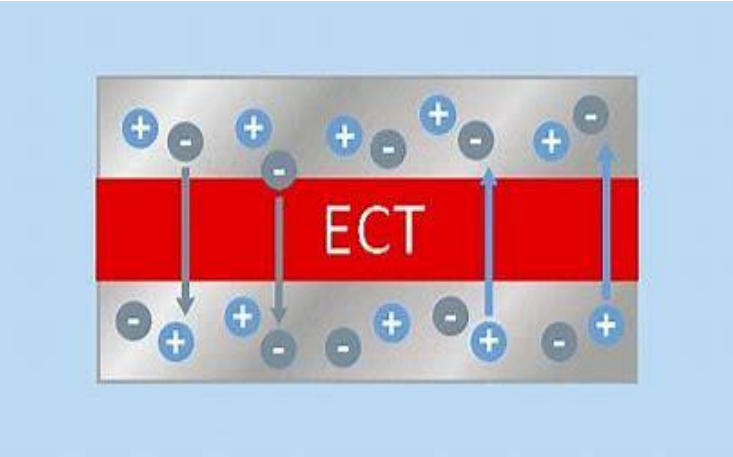
Describes the electrical conductivity of the tape in XYZ direction.

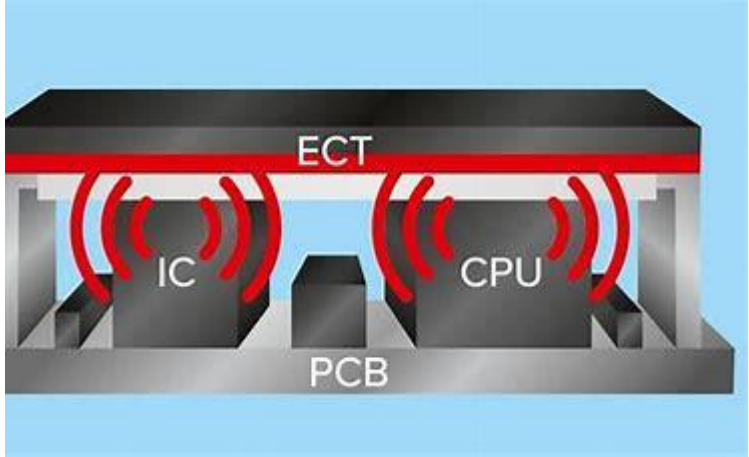
The lower the surface resistance the higher the conductivity in XYZ direction.

Shielding effectiveness dB

Describes how much of an electromagnetic signal the tape can block

Shielding between >50 and 90 dB may be considered a high level of protection, while 90 to 120 dB is exceptional





tesa® ELECTRICALLY CONDUCTIVE TAPES

Selected package with a wide thicknesses range and various backing products

tesa® Product	Type & Backing	Thickness in µ	Type of Adhesive	Color	Log m/mm	Liner & Thickness	Stock Item* MOQ1	Peel adhesion to SUS (initial/ultimate) [N/cm]	Contact resistance [mΩ.inch2	Surface resistance [mΩ.inch2]	Shielding effectiveness [dB]	Product description
tesa® 60371	Double sided Non-woven	30µ	Conductive Acrylic	Black	100 x 1.040	PET 50µ	1	3.5 / 5.1	0.01	0.1	>60	Best conductivity
tesa® 60372	Double sided Non-woven	50µ	Conductive Acrylic	Black	100 x 1.040	PET 50µ	1	4.3 / 5.6	0.01	0.1	>60	Best conductivity
tesa® 60374	Double sided Non-woven	100µ	Conductive Acrylic	Black	50 x 1.040	PET 50µ	1	5.7 / 8.5	0.01	0.1	>60	Best conductivity
tesa® 60252	Double sided Woven	55µ	Conductive Acrylic	Gray	50 x 1.040	PE Paper 120µ	1	5.5 / 8.5	0.05	0.2	>50	Balanced conductivity & bonding
tesa® 60253	Double sided Woven	70µ	Conductive Acrylic	Gray	50 x 1.040	PCK 120µ	1	4.8 / 9.7	0.05	0.2	>50	Balanced conductivity & bonding
tesa® 60254	Double sided Woven	100µ	Conductive Acrylic	Gray	50 x 1.220	PCK 120µ	1	6.6 / 10.4	0.05	0.2	>50	Balanced conductivity & bonding
tesa® 60255	Double sided Woven	150µ	Conductive Acrylic	Gray	50 x 1.040	PCK 120µ	1	4.5 / 10.5	0.05	0.2	>50	Balanced conductivity & bonding
tesa® 60537	Single sided Copper	30µ	Conductive Acrylic	Copper	50 x 1.020	PET 50µ	1	6,3 / 7,5	0.05	0.2	>70	Excellent bonding
tesa® 60538	Single sided Copper	50µ	Conductive Acrylic	Copper	50 x 1.020	PET 50µ	1	6,4 / 7,7	0.05	0.2	>70	Excellent bonding
tesa® 4386	Single sided Aluminum	85µ	Conductive Acrylic	Silver	50 x 1.000	Paper 65µ	4	/ 3,0		0,2		Further data under evaluation
tesa® 60246	Single sided foam	300µ	Conductive Acrylic	Gray	40 x 1.030	PCK 120µ	1	4.8 / 6.3	0.03	0.2	>70	Compression rate at 50%: <55N/cm Recovery rate after 24h: 96%
tesa® 60248	Single sided foam	500µ	Conductive Acrylic	Gray	30 x 1.030	PCK 120µ	1	4.8 / 6.3	0.03	0.2	>70	
tesa® 60217	Single sided foam	1500µ	Conductive Acrylic	Gray	30 x 1.000	PCK 120µ	1	/ 8,5	0,03	0,2	>70	Highly compressible and high adhesion levels
tesa® 60218	Single sided foam	2000µ	Conductive Acrylic	Gray	20 x 1.000	PCK 120µ	1	/ 8,5	0,03	0,2	>70	

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.