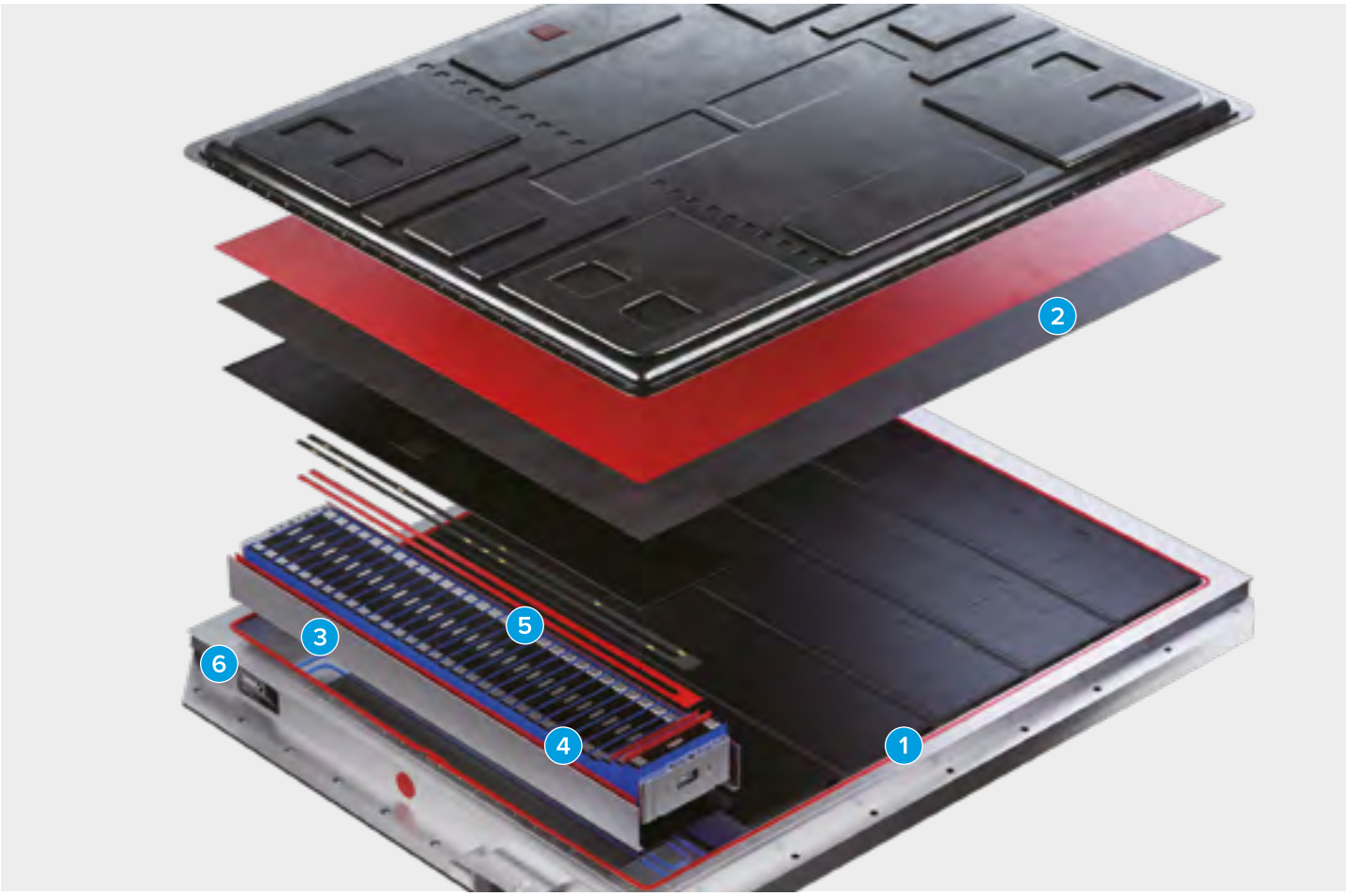
Powering innovation together

Adhesive solutions for electric vehicles

Partner for progress

We play a key role in shaping the future of mobility with innovative and more sustainable product and system solutions. To this end, we are working closely with customers andpartners around the world.

With dedicated development and regional production, we provide industry-leading adhesive tape solutions. Holistic automation and consultancy services enable reliable and efficient production processes.



1 Battery Pack Sealing
2 Fire Protection
3 Metal Part Insulation
4 Cell Wrapping
5 FPC Mounting
6 Laser Label

Enabling passenger safety and design freedom

To make sure every demand is met, we specifically develop self-adhesive tape solutions for e-powertrain applications. It is our business to support you during the entire product development process. We put you and your suppliers first by giving you the individual attention and service you deserve.

Our tapes are suitable for high performance applications inside batteries, such as our solutions for cells, modules, and packs include:

Electrical insulation
Reliable protection against short circuits in battery cells and metal parts

Fire protection
Providing passenger safety in unlikely thermal runaway and propagation events

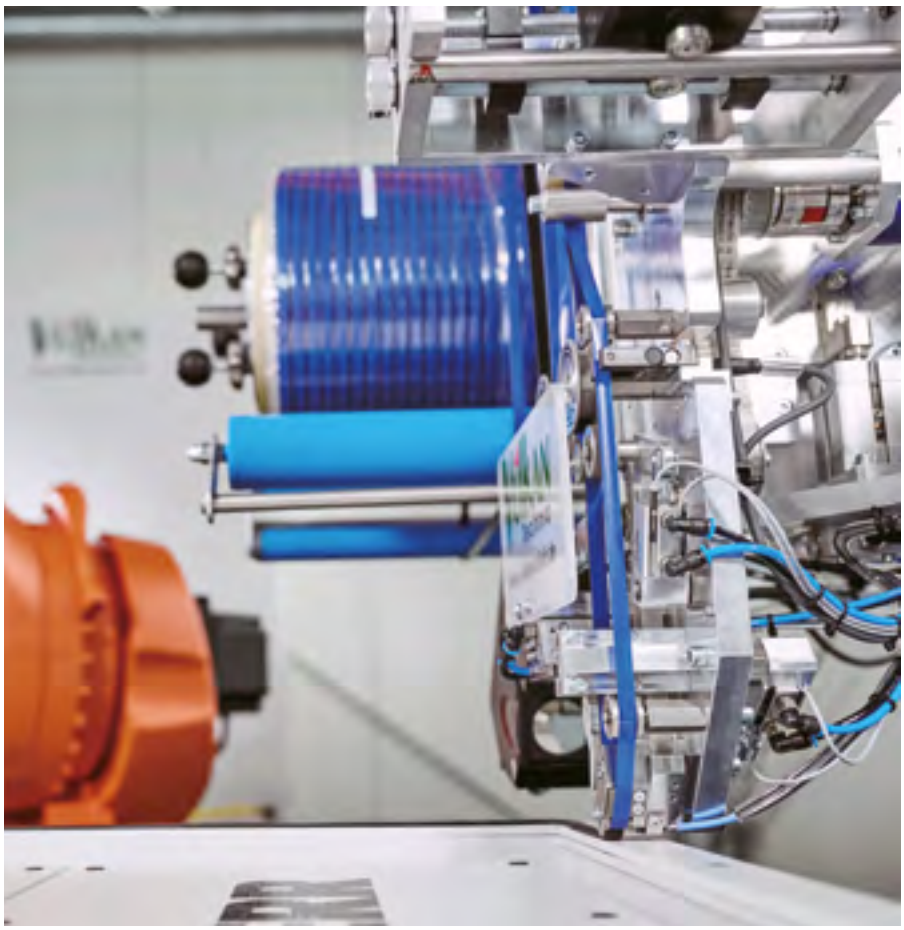
Mounting
Next to traditional mounting applications, debonding on demand solutions enable rework, recycle, repair, and reuse of battery components

Sealing
Clean and fast automated application to protect against leakage, water ingress, and corrosion

Accelerating battery production

Tape application is a critical process in the production of electric vehicles as it is used for a variety of purposes, including holding parts in place, providing electrical insulation and advanced tasks like fire protection, venting and sealing.

tesa helps industry partners in finding the right application process and automation partner to accelerate battery projects and increase battery production efficiency. Successful implementation has been proven for all parts of the battery assembly: Cells, modules and packs.



Application for cells
- Electrical insulation
- In-cell applications (electrolyte resistant tapes for jelly roll fixation, stack fixation etc.)
- Anti-thermal propagation (e.g. aerogel encapsulation)

Applications for battery modules
- Mounting
- Metal part insulation
- Thermal management
- Debonding on demand

Applications for battery packs
- Venting
- Box sealing
- Fire protection
- Hole sealing
- Spacing / abrasion protection
- Debonding on demand

Scan this code for further information

Partner up and automate your processes

Discover the cost-effective benefits of tape process - easy handling, no curing time, form stability, and low investment costs.

The tape arrives at your facility in a pre-cured state, meaning that it is already fully functional and can be applied immediately without any need for additional curing time or special equipment. This results in a simpler and more efficient process, as there is no need for heat-up time or the use of safety gloves, making it a convenient and hassle-free solution for your production needs. Another advantage of our tape process is its lack of curing time.

At tesa, we provide the complete solution: from sealing patches, consulting and the application equipment. We aim to improve your processes by offering fully automatic solutions for your application needs. We consult with you to identify the best fitting solution and work with integrators and application suppliers to set up your production line.

Electrical insulation

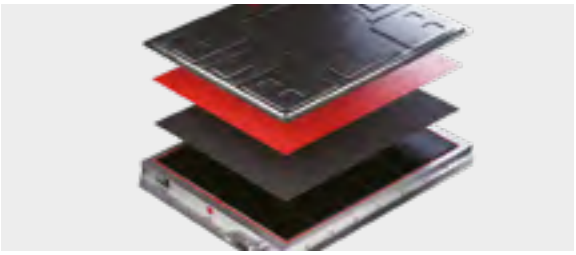
Adhesive tapes with high breakdown voltage guarantee secure electrical insulation for highly automated production processes.

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

PET: polyethylen terephtalate, PP: polypropylene, PCR: post-consumer-recycled

Fire protection

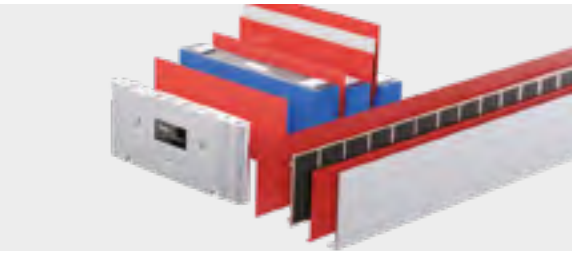
Whether a full solution including functional materials or the ideal adhesive solution: tesa offers products for any substrate, enabling fire protection and matching automotive safety requirements.



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			
Battery assembly	PET, non-woven	Transparent	58323, 8853, 58360, 58362, 58363, 58364	50 – 200 µm
Thermal management	No backing (transfer tapes)	White, transparent	60743, 60744, 58394, 58395, 58398, 58399	30 – 400 µm
Cell-to-cell /components mounting	PET	Transparent	58360,58362, 58363,58364	50 – 200 µm
Debond on Demand	No backing (transfer tape)	Black	76565	500 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	2.8 mm, 5.5 mm
Hole sealing	Acrylic, PET	Transparent, grey, black	54348, 54336, 54349, 54335	90 µm – 1690 µm

1/2025

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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