The background of the entire page is a detailed, close-up photograph of an electric vehicle battery pack assembly. The battery cells are arranged in a grid and are held together by blue plastic frames. The entire assembly is mounted on a grey metal chassis. Red lines are overlaid on the image, highlighting the adhesive joints between the battery pack and the chassis. The lighting is bright, highlighting the metallic surfaces and the blue plastic.

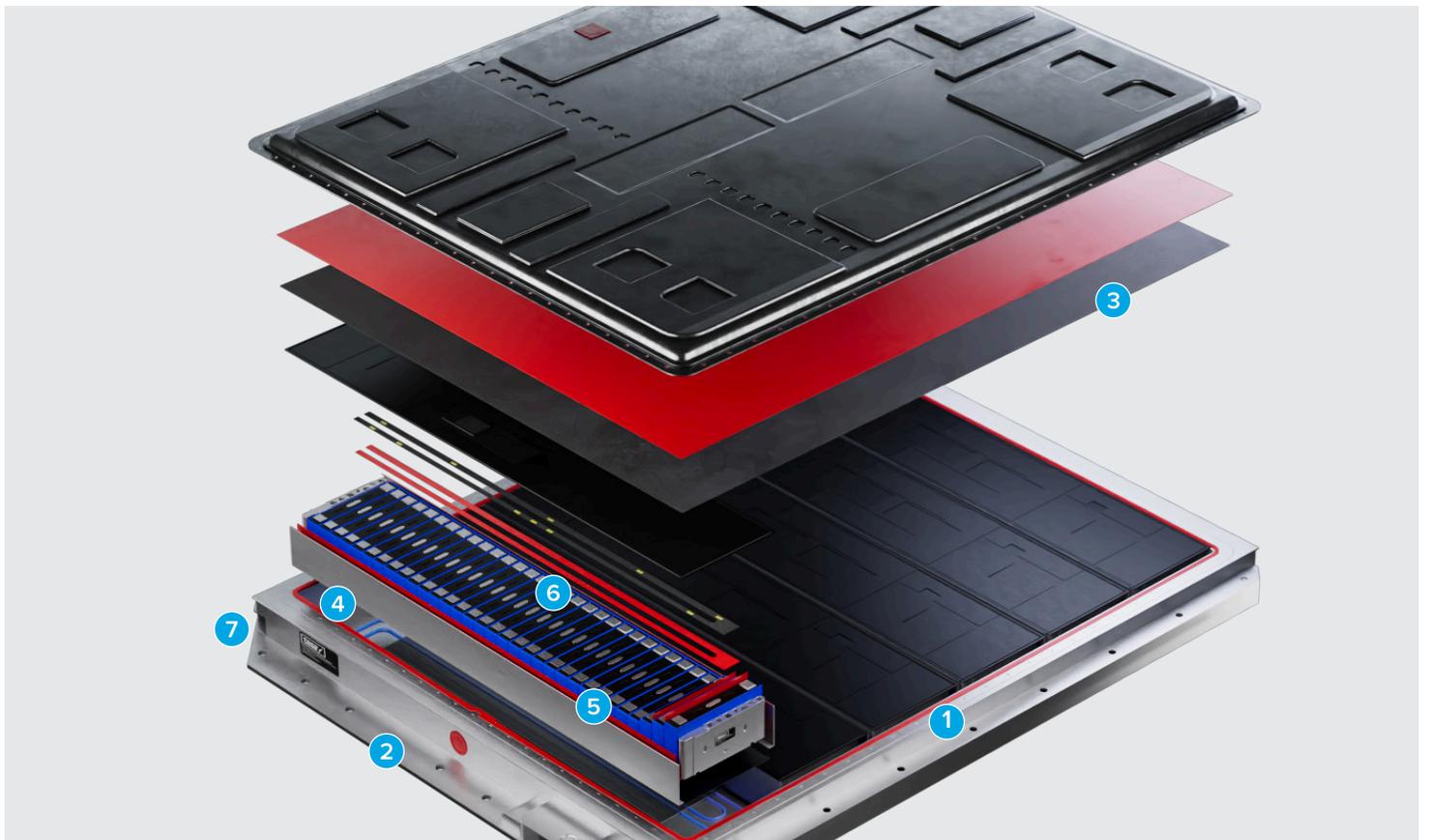
# Powering innovation together

Adhesive solutions for electric vehicle battery applications

# 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 and partners 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 Emergency Venting
- 3 Thermal Protection
- 4 Metal Part Insulation

- 5 Cell Wrapping
- 6 FPC Mounting
- 7 Laser Label

# Enabling passenger safety and design freedom

To ensure every demand is met, we develop specific self-adhesive tape solutions for EV battery applications. It is our intent to support you during the entire product development process. We put you and your customers first by giving you the individual attention and service you deserve.

Our tape solutions for cells, modules, and packs are suitable for high performance applications inside battery packs, such as:

## **Electrical insulation**

Reliable protection of battery cells and metal parts against short circuits and arcing

## **Thermal protection**

Providing passenger safety in unlikely thermal runaway and propagation events

## **Mounting**

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

## **Venting**

Process-efficient automated solution for battery packs, providing safety by degassing in case of pressure buildup inside the battery

## **Sealing**

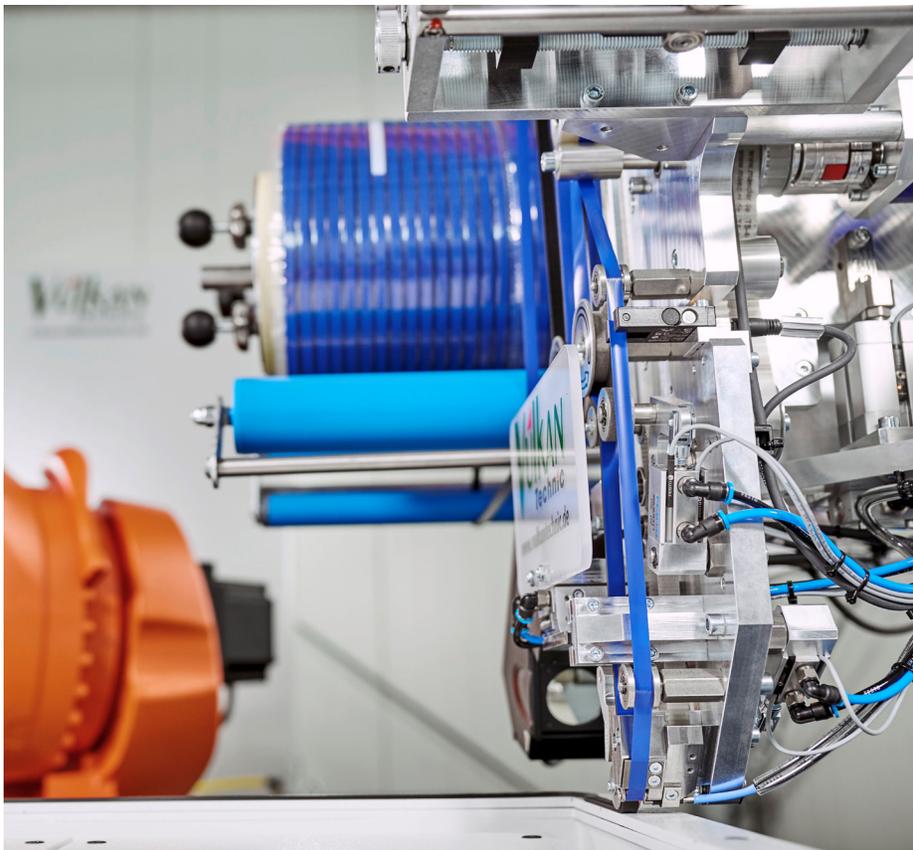
Clean and fast automated application to protect against leakage, water ingress, and corrosion



# 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 enabling advanced functions 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
- Thermal protection
- Hole sealing
- Spacing / abrasion protection



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



At tesa, we provide the complete solution: from finding the right tape, to supporting the application equipment development and implementation process. 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 equipment 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			
<b>Cell wrapping</b>	PET, PCR-PET	Transparent, black, blue	58331, 58353, 58338, 58355, 58352, 58347, 58655	50-110 µm
<b>Metal part insulation</b>	PET, PCR-PET	Transparent, black, blue	7250, 58330, 58331, 58351, 5835X, 64250	45-220 µm
<b>In-cell</b>	PET, PP	Blue, yellow	58337 + 5831X	35-45 µm

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

## Thermal 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 re-



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

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.

## Mounting

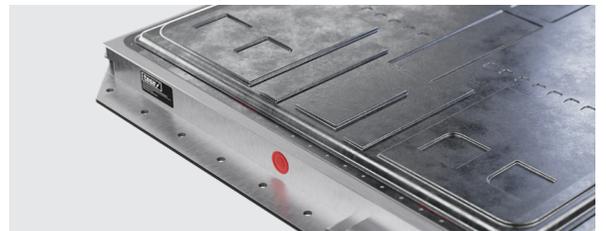
Reliable and strong bonding over the entire vehicle lifetime can be combined with a debonding on demand function, enabling re-manufacturing and recycling.



Area of application	tesa solution			
<b>Battery assembly</b>	PET, non-woven	Transparent	5836X, 5832X, 4972, 4982, 58323, 8853	50-200 µm
<b>Thermal management</b>	No backing (transfer tapes)	White	60743, 60744, 58394, 58395, 58398, 58399	30-800 µm
<b>Cell-to-cell /components mounting</b>	PET	Transparent	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			
<b>Battery pack and module venting</b>	PCR-PET, aluminium	Silver	54112	<400 µm

## Sealing

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



Area of application	tesa solution			
<b>Box and battery pack sealing</b>	Foamed acrylic	Deep black	76730	2800 µm
<b>Hole sealing</b>	Acrylic, PET	Transparent, grey, black	54348, 54336, 54349, 54335	90 µm – 990 µm



## 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](http://www.tesa.com/certifications)



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