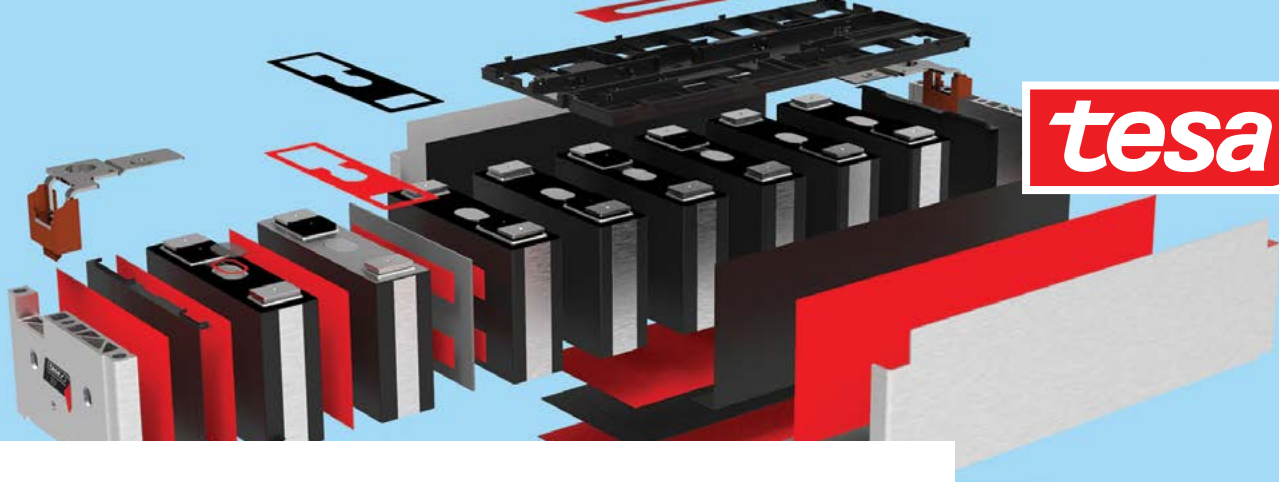




Dielectric Breakdown and Electrical Insulation

Why is electrical insulation important for vehicle batteries? Most battery cell housings utilize module side plates and cooling plates made from metals, such as aluminum. Although the thermal conductivity of aluminum is ideal for the heat dissipation needs of the battery, it is also highly electrically conductive. Without proper insulation, this causes a risk of electrical arcing and leads to safety concerns.

tesa offers a variety of adhesive tape solutions that effectively insulate battery components from electricity.



Electrical insulation tapes for battery components

We stand by adhesive tapes as the best option for battery component insulation. In one case study, we found that tesa® 58356 resulted in an **80% reduction in cycle time** and a **25% decrease in failure rate** when compared to e-coating insulation.

Additional benefits

- Customizable to suit your needs
- Compatible with manual, semi-automated, and fully automated processes
- Can be applied to a variety of 3D shapes and geometries
- Repulsion resistant which allows for tight adhesion to angles and corners



NEWS: 2 new electrical insulation tapes made in the USA will be launched in 2023!

Focus Assortment

Product	7160	7250	51407	58351	58353	58356	58358	64250
Thickness [µm]	60	50	62	73	85	130	220	80
Adhesive	Acrylic	Acrylic	Silicone	Acrylic	Acrylic	Acrylic	Acrylic	Acrylic
Color	Black	Black	Translucent brown	Transparent	Black	Black	Black	Blue
Coating [µm]	35	25	37	50	35	30	120	29
Backing	25 µm PET	25 µm PET	25 µm Polyimide	23 µm PET	50 µm PET	100 µm PET	100 µm PET	51 µm MOPP
Breakdown Voltage (kV)	5	6, 1	6	6.5	10, 6	13.3	13	10, 7
Application	Constrained spaces	Constrained spaces	High temp PI solution	High temp & anti-repulsion	Effective OES /OEM	High strength & robustness	High strength & robustness	Simple & economical

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.

United States and Canada

tesa tape, inc.
5825 Carnegie Boulevard | Charlotte, NC 28209
Phone: +1-800-426-2181
Email: customer-care@tesatape.com



4/2023