SUPERIOR FOAM PRODUCTS FOR

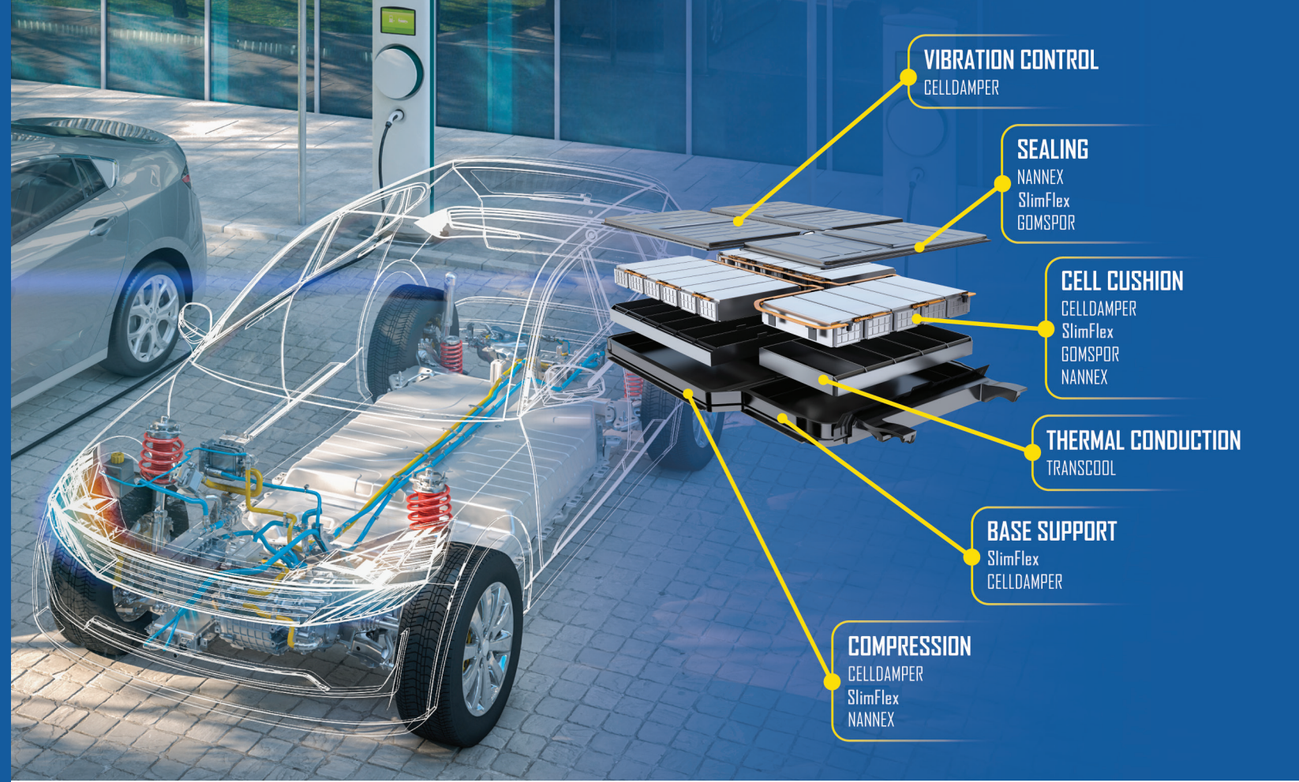
EV BATTERIES



INOAC

FOAM DRIVES SAFETY AND LONGEVITY FOR EV BATTERIES

The Electric Vehicle (EV) industry continues to grow at a rapid rate with no end in sight. As automakers increase their commitment to providing EVs, the need for safer, lighter and more durable batteries escalates. INOAC has engineered a wide variety of innovative foam materials to solve the challenges faced by today's EV battery manufacturers.



REDUCED VIBRATION

INOAC's foam materials are uniquely designed to reduce vibration and shock, resulting in less damage to EV battery components. Decreased vibration leads to a smoother ride with less noise.

SEALING

INOAC's specialized foams are ideal for protecting EV battery components from moisture, fire, dust and other contaminants.

THERMAL CONDUCTION AND HEAT TRANSFER

One of the main threats to EV batteries is excessive heat and extreme temperature. INOAC's foams can provide thermal insulation, high heat conduction and heat transfer.

BASE SUPPORT

INOAC's durable and stable foam products increase the lifespan of EV batteries by providing needed base support, as an underlay cushion for modules.

CELL CUSHION

EV batteries contain hundreds, and sometimes thousands of individual cells. To increase durability, INOAC's specialized foams separate cells, preventing them from colliding and ensuring a snug fit.

COMPRESSION

EV battery cells expand and contract during recharging and discharging. INOAC's polyurethane and silicone foam materials control the battery's surface pressure, without compromising the shape and fit of the cells.





Industry

Polymer Chemistry

Experience

More than 97 years

Location

20 Facilities Worldwide

WHY INOAC

ESTABLISHED AND DIVERSE

INOAC is one of the oldest and largest companies in the polymer chemistry industry with more than 97 years of experience and 20,000 employees. This multi-billion dollar organization designs, engineers and manufactures superior foam materials for nearly every major industry.

GLOBAL WITH CUSTOMER FOCUS

As a global company with locations in 20 countries, INOAC offers some of the shortest lead times in the industry. Customers always come first at INOAC, whether it's customizing products to meet their specific needs, engineering new products that advance the market or providing top-quality technical support long after the sale is made.

AUTOMOTIVE EV EXPERIENCE

As a supplier of interior and exterior automobile components, INOAC knows how to provide excellent value and on-time delivery with zero defects. INOAC continues to develop new materials and manufacturing processes for the EV battery market that are leading to better, safer vehicles and a more cost-efficient operation.

CELLDAMPER

Celldamper is a an extremely durable polyurethane elastomer foam that was developed to reduce vibration, noise and oscillation. Celldamper is a flame retardant material, which can be used in a wide range of applications in EV batteries. It is a non-silicone, halogen-free product with little odor and a low compression set.

Dimensions

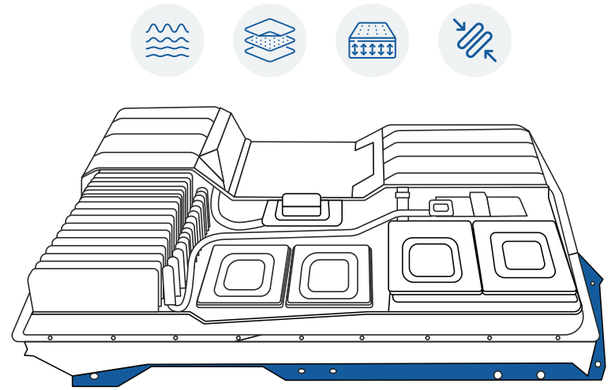
500 x 1000 mm sheets

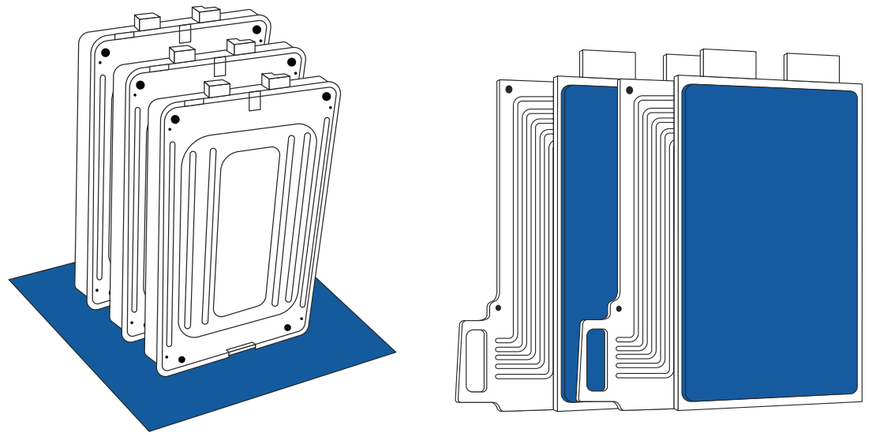
Thickness

1 - 10 mm

Material

Polyurethane





Celldamper is used for cell cushioning, compression, reduced vibration and base support as shown to the right.

TRANSCOOL

Transcool was designed for heat transfer. It is made from a soft silicone rubber or acrylic material with a high-heat conduction to enable efficient heat transfer at the interface. The durable product has a UL 94 V-0 flame retardant rating.

Dimensions

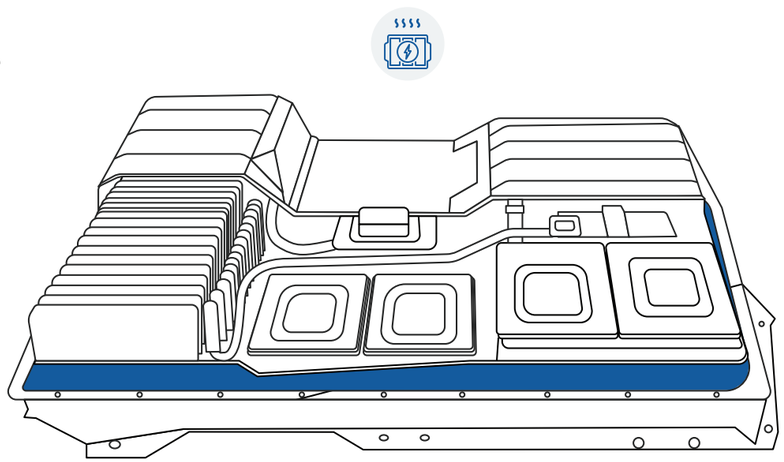
500 x 500 mm sheets

Thickness

1 - 6 mm

Material

Silicone or Acrylic



Transcool provides thermal conduction for EV batteries as shown above.

GOMSPOR

GOMSPOR is comprised of Ethylene Propylene Diene Monomer (EPDM) rubber with a closed cell structure. It is light-weight, shock absorbing and water resistant. GOMSPOR's benefits include exceptional weather and temperature resistance and low thermal conductivity. The halogen-free, fire-resistant product was also rated UL 94 V-0 for its E-4348 grade.

Dimensions

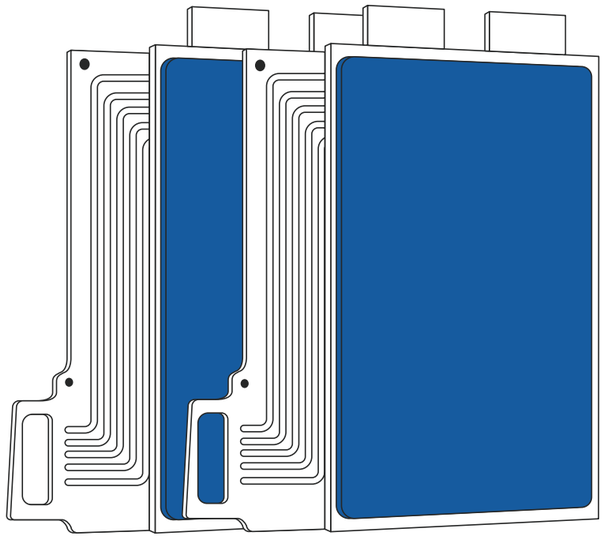
1000 x 1000 mm
(some grades also offer larger sheets)

Thickness

0.5 - 33 mm

Material

EPDM



GOMSPOR is used for cell cushioning and separation as shown above.

NANNEX

NANNEX is made from high-expansion silicone foam and features a special semi-closed cell structure. The main attributes include outstanding hot and cold resistance and low compression set. It is fire resistant with most grades obtaining UL 94 V-0 rating. It is also designed to prevent ignition fires by thermal runaway at up to 800 degrees C.

Dimensions

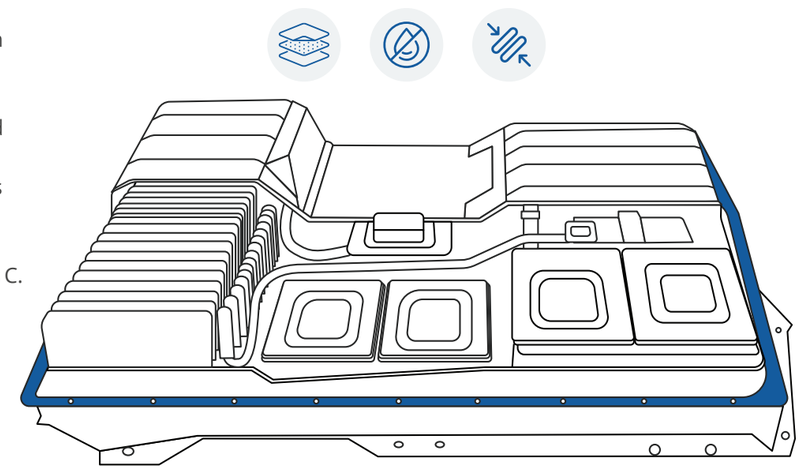
1000 mm x 10 m rolls

Thickness

1 - 8 mm

Material

Silicone



NANNEX is well-suited for EV battery heat-resistant sealing, particularly around gaskets for battery case, cell cushioning and compression as shown above.

SlimFlex

SlimFlex is a high-performance polyurethane foam featuring a unique semi-open, uniform cell structure that results in excellent dimensional stability, thickness accuracy and impact absorption. It is a halogen-free and flame-resistant product.
Its RX-32 grade product has a UL 94 rating of V-0. It performs well in all temperatures, including up to 110 degrees C.

Dimensions

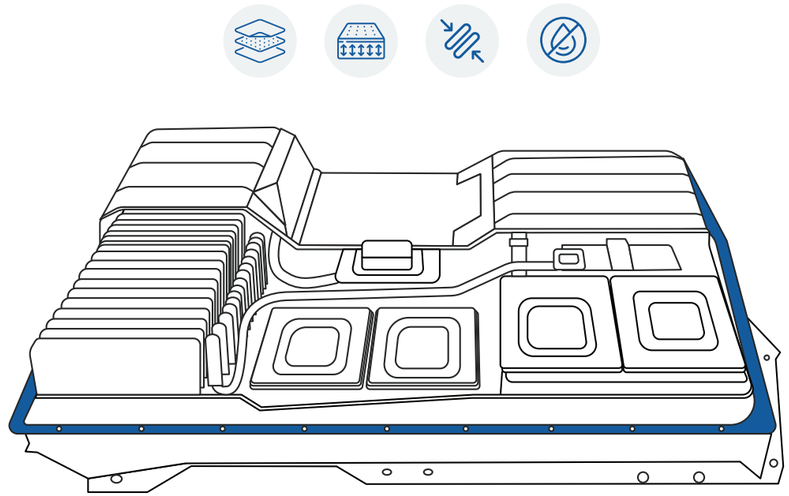
Roll sizes vary

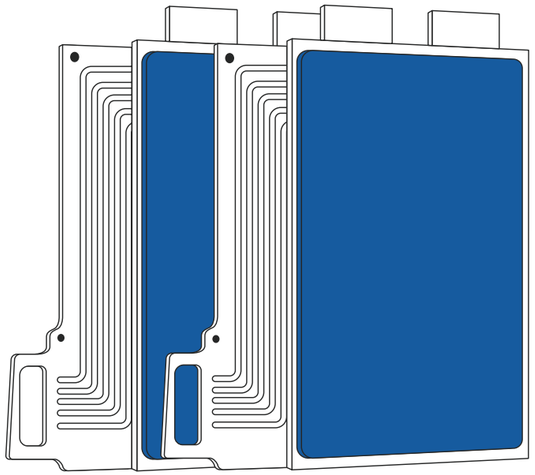
Thickness

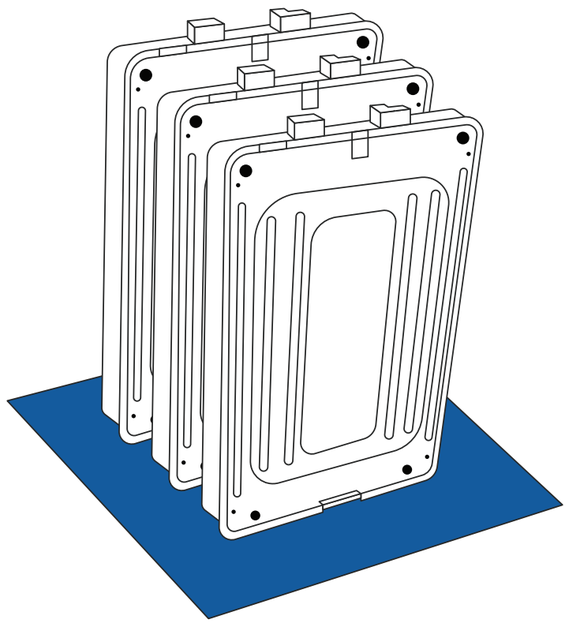
1.0 - 10.0 mm

Material

Polyurethane







SlimFlex is used as a seal for gaskets, gas ducts, charging stations and charging port, as well as for cushioning, compression management and base support as shown above and to the left.

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