

# High Performance Silicones, Polyurethanes, and Venting Membrane Material Solutions for Battery Energy Storage Systems

Battery energy storage system material solutions from Rogers Corporation address mission-critical environmental sealing, safety, battery cycle life, venting, thermal runaway, and compression padding challenges.

With materials available in roll stock and a variety of firmness, thickness, and color options, Rogers materials meet the most stringent and versatile design requirements.

Material expertise, coupled with exceptional support from experienced technical and quality teams, ensures our customers' success.



The Rogers portfolio of high-performance materials delivers long-term solutions for the most challenging battery energy storage systems (BESS) applications.

## **BISCO® Silicones**

BISCO silicone foams are engineered to perform with the highest level of reliability in extreme temperatures and environmental conditions, making them ideal for long-term sealing applications.

## **PORON® Polyurethanes**

The PORON product portfolio contains a wide range of polyurethane foams with customizable compression curves and good compression set. The materials are well-suited for use as battery compression pads and minor sealing applications.

## **DeWAL® Venting Membranes**

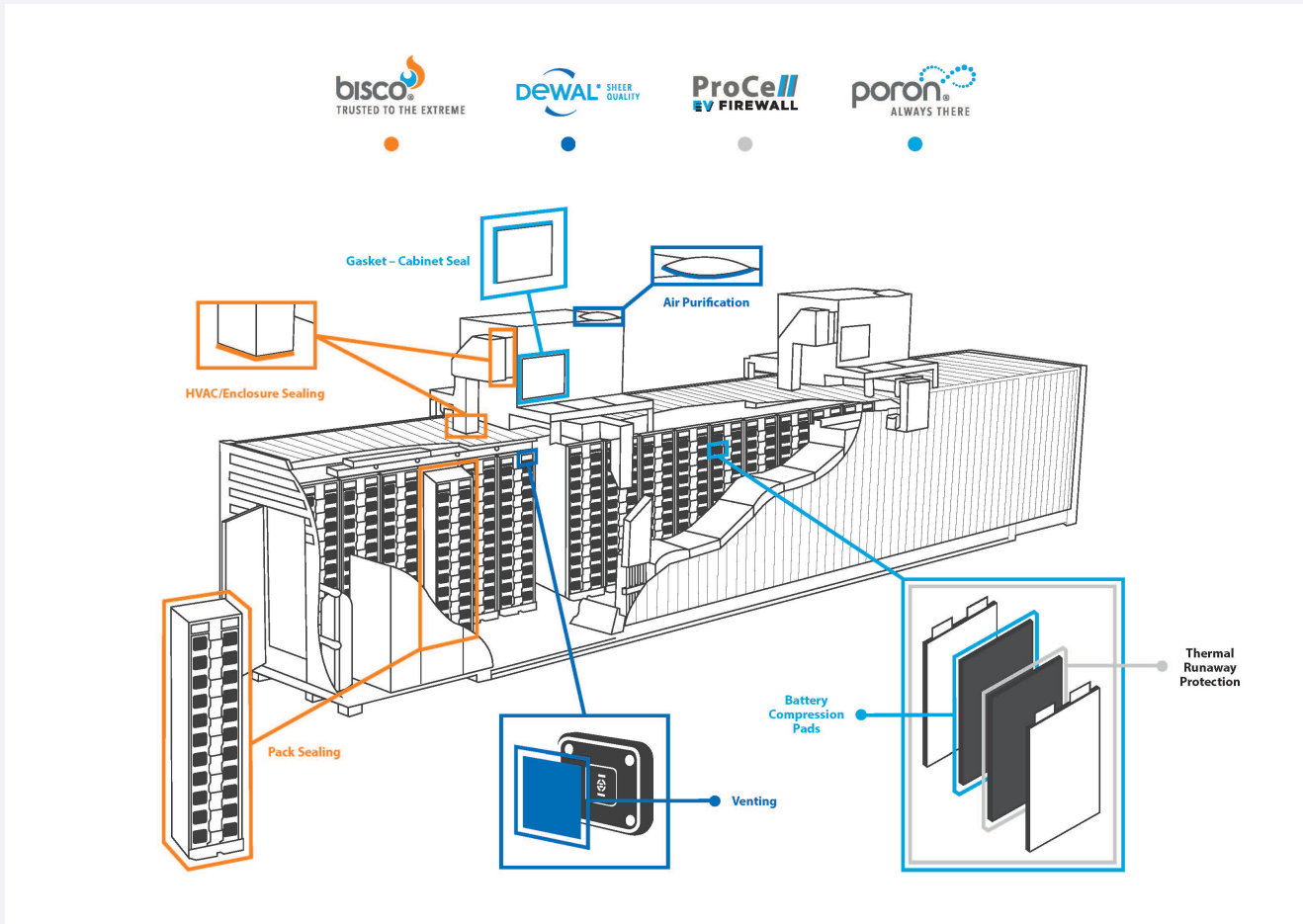
A variety of PTFE membranes for venting offer water and dust ingress protection paired with ventilation options for optimal performance. UHMW solutions provide strong abrasion resistance and can be used for slip surfaces.

## **ProCELL™ EV Firewall**

ProCell EV Firewall materials offer enhanced thermal properties to mitigate against thermal runaway on both a cell and module level.

# Battery Energy Storage System Application Spotlight

Rogers materials (color-coded by product brand) improve reliability, sustainability, and long-term performance in the following application areas:



## Environmental Sealing

### Enclosure, Battery Pack, HVAC Sealing

- Benefits:
- Highest level of reliability and durability
  - Superior compression set
  - Excellent flame and UV resistance
  - Superior sealing including water, air, dust
  - Robust dimensional stability
  - Excellent for repositionability

## Venting

### Equalization Vents, Burst Vents, Dual Stage Vents

- Benefits:
- Equalization vent: Equalizes pressure and protects against debris ingress
  - Burst vent: Seals system against debris and bursts for rapid release of pressure if needed
  - Dual Stage vent: Provides the functionality of both an equalization and burst vent.

## Compression / Gap Filling

### Pouch Cells, Prismatic, New Battery Technology

- Benefits:
- Excellent pressure management
  - Superb compression set
  - Consistent push back force
  - Long term dimensional stability
  - Optimizes battery cell life and performance
  - Shock and vibration protection

## Thermal Management

### Thermal Propagation

- Benefits:
- Delays or stops thermal propagation
  - Adheres to safety regulations

For more information and to request a material sample, visit [solutions@rogerscorporation.com](mailto:solutions@rogerscorporation.com).



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