

# SafeCASE April 2024

#### PRODUCT DESCRIPTION

KULR's SafeCASE is a DOT permitted Passive Propagation Resistant (PPR) storage and transportation system for batteries. It is designed to mitigate thermal runaway, providing safe and sustainable storage and transportation for lithium-ion cells and battery packs that are up to 2.5 kWh per case and utilizes KULR's patented <sup>3</sup>Thermal Runaway Shield® (TRS) technology. It is available in multiple sizes and can be customized upon request.

### **FEATURES AND BENEFITS**

- DOT approved for ground transportation
- Rated Up to 2.5 kWh per case
- Reusable
- Sustainable
- Safe nontoxic construction

### **TYPICAL APPLICATIONS**

SafeCASE can be customized to fit any application within the rated energy limit but is typically used for lithium-ion cell/battery storage, transportation, and DDR/hazardous li-ion battery recovery and recycling.

## **TYPICAL PROPERTIES**

PROPERTY	TYPICAL VALUE	TEST METHOD							
External Case									
Color	Black	Visual							
Maximum Operating Temperature	900+°C	Material Prop							
TRS									
Construction	<b>Encapsulated Coolant</b>	N/A							
Maximum Energy Rating	Up to 2.5 kWh	DOT Approved TR Test <sup>2</sup>							
<sup>1</sup> Product Assembly Thickness	2 mm Micrometer								
<sup>1</sup> Tensile Strength (at break)	>14 lbs	ASTM D882							
<sup>1</sup> Tear Strength (375F;26psi; 1 sec)	gth (375F;26psi; 1 sec) >1.7lbs ASTM689								
Seal Strength (375F;26psi; 1 sec)	rength (375F;26psi; 1 sec)								
<sup>1</sup> Puncture Strength	>25 lbs	TMS 101-C, Method A							

 ${}^{1}\!\operatorname{For}$  further information see TRS Technical Data Sheet,

<sup>2</sup>DOT test performed by KULR to receive permits #21139,21167,21193,21693,21704

<sup>&</sup>lt;sup>3</sup>U.S. Patent No. US-11018397-B, US-11502352-B2, US-10727462-B2



PROPERTY	TYPICAL VALUE	TEST METHOD							
Ablative Reinforcement									
Tensile Strength	>80MPa	ASTM D638							
Compression Strength	>180MPa	ASTM D695							
Flexural Strength	>80MPa	ASTM D790							

PRODUCT	DIMENSIONS	RATING	INTERNAL DIMENSIONS	EMPTY WEIGHT	MAXIMUM WEIGHT	ABLATIVE REINFORCME NT
<b>Model N</b> (K-KSC-000002)	19"W x 13.0"D x 8.5"H	2.5 kWh	17.0"W x 11.0"D x 7.0"H	8.69lbs	66lbs	Yes
<b>Model G</b> (K-KSC-000009)	20"W x 16.5.0"D x 6.5"H	2.5 kWh	19.0"W x 16.0"D x 6.0"H	12.00lbs	66lbs	Yes

### **AVAILABILITY**

SafeCASE can be engineered in custom sizes. Please contact KULR Technology Group for additional information.

## **DISCLAIMER**

Data on this Technical Data Sheet (TDS) are typical values and for reference only. The information provided in this TDS, including but not limited to the recommendations for use and application of the product, are based on our knowledge and experience of the product. The product can have a variety of different applications, as well as differing working conditions and environments that are beyond our control. Factors or events that could cause actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We cannot guarantee future results, performance, or achievements. Furthermore, no representations or warranties are made as to the accuracy or reasonableness of any assumptions on which the data or information is based.

This product is not intended for use with any products containing lithium metal. KULR Technology Group, Inc. is, therefore, not responsible, or liable for the suitability of our products for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you conduct your own prior trials to confirm such suitability of our product for your use and application and within you working conditions and environments.