

# POWERCERAM™

**SILICON CARBIDE  
CERAMIC SAGGERS  
FOR CATHODE ACTIVE  
MATERIAL (CAM)  
PRODUCERS**



## **BOOST CAPACITY CUT WASTE**

At Saint-Gobain, our commitment to sustainability drives us to develop innovative, cost-effective solutions that support our mission of Making the World a Better Home.

Our POWERCERAM™ ceramic sagger line used in the sintering of cathode active material (CAM) includes a range of silicon carbide (SiC) based materials. The use of these materials enables CAM producers to reduce operating cost and increase throughput while operating more sustainably and with greater reliability. Additional recycling solutions for end-of-life ceramics help reduce dependence on raw materials and eliminates a significant waste stream.

Saint-Gobain specializes in producing effective, high-performing products that will meet your needs now and in the future.

### **BENEFITS**



**EXTENDED SERVICE LIFE**



**INCREASED CAPACITY**



**REDUCED WASTE**



**REDUCED ENERGY**



# POWERCERAM™

## SIC CERAMIC SAGGERS FOR CATHODE ACTIVE MATERIAL (CAM) PRODUCERS

### OUR POWERCERAM™ SOLUTION

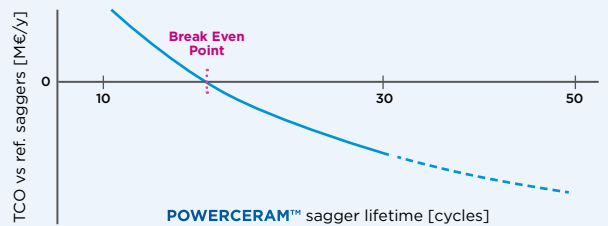
Saint-Gobain's innovative POWERCERAM™ solutions are developed to address CAM producer's efforts to sustainably scale production of the cathode material necessary to produce Lithium and Sodium-ion batteries. This next generation sagger technology enables CAM producers to significantly reduce their CO<sub>2</sub> emissions to meet increasingly stringent environmental targets. Our saggars are available in a variety of shapes from the standard 330 x 330mm designs to customized solutions. Manufactured from industry-leading SiC-based materials and coupled with novel design improvements, these saggars exhibit radically increased strength, thermal conductivity, corrosion resistance, and thermal shock resistance relative to the standard oxide-based ceramics used in this industry. These material properties enable lower wall thickness which results in lower mass, less energy, and greater loading capacity per sagger for maximum roller hearth kiln (RHK) efficiency.

### CASE STUDY

#### INCREASED PRODUCTIVITY AND SUSTAINABILITY FROM POWERCERAM™ SAGGERS

With our POWERCERAM™ sagger solutions we provided our customer with a next-generation solution to significantly reduce operating cost, increase productivity, save energy, reduce CO<sub>2</sub> emissions, and eliminate a significant waste stream. These products are designed to improve the product-to-kiln furniture ratio allowing for optimized product loading and overall firing efficiency while increasing cycle life versus standard ceramic sagger products. Take-back programs and recycling solutions contribute to significant reductions in waste and sagger-related CO<sub>2</sub> emissions.

#### POWERCERAM™ SAGGERS Bring Total Cost of Ownership Benefits with >30% Increased Cycle Life vs. the Reference



#### KEY ADVANTAGES

- Sagger TCO Improvement
- RHK Capacity Improvement
- Sagger-Related Waste Reduction
- Energy-Related CO<sub>2</sub> Reduction

### SAINT-GOBAIN PERFORMANCE CERAMICS & REFRACTORIES

For more information:  
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