



KROSSLINKER

AEROGEL INSULATION

BIG ENERGY & SPACE SAVINGS IN REEFER TRANSPORTATION WITH AEROGEL TECHNOLOGY

TECHNOLOGY OVERVIEW

The worlds most insulating material, Aerogel, now made accessible and affordable with a patented, low-energy, scalable process, using a water-based & eco-friendly formulation.

The Nano-porous structure of Aerogels gives it the best-in-class thermal insulation performance that is sustained long-term. This allows for thinner panels with better insulation performance (as compared to the conventional PUR/PIR foams) – i.e. more space for goods & less energy needed for refrigeration. Furthermore, KrossLinker Aerogel Composites have built-in fire-retardance, and are completely non-toxic – All the benefits with none of the drawbacks associated with conventional foams.



*BASED ON PRELIMINARY SIMULATIONS. TEST CONDITIONS AVAILABLE ON REQUEST. KL: KROSSLINKER, PU: POLYURETHANE

ABOUT US

KrossLinker is a venture capital backed, advanced material start-up based in Singapore founded by a team of scientists. We develop a class of thin, lightweight Silica Aerogel Composites with industry leading thermal insulation performance. For the first time, with our disruptive patented platform technology for fabrication & formulation, we have addressed several challenges that have thwarted traditional Aerogels from broader adoption, such as brittleness, dustiness, high-cost and limited production scalability. Our aim is to make this premium material affordable and accessible across all mainstream insulation markets.

MATERIAL PROPERTIES

Thermal Conductivity
17 to 19 mW / m.K

Nominal R Value (1 inch)
7.5 to 8.5

Density
80 to 150 kg / m³

Operating temp range
-150 to 300 °C

Compressive strength
0.3 to 1 MPa

Product Form Factor
Rigid Board (Can be easily cut to size with a utility knife)

Sheet size: **1.2 x 0.8 m**
Thickness: **5 to 50 mm**

