



Product Used

Pyrogel® 2250

Aerogel Maintains Superior Thermal Performance In Intense Conditions

Aerogel encapsulates foot for maximum protection even when compressed

Fabrication Partner

Genfort Shoe Limited
Zhongshane, China

Challenges

- Provide advanced insulation for a new winter boot manufactured by Red Wing's Vasque division.
- The insulation needed to maintain thermal performance in severe cold climate environments while under the intense compression of climbing conditions.
- The insulation also needed to be thin for boot comfort.
- Competing insulation was a lofted insulation material.

Aspen Aerogels Solution

- Aspen Aerogels developed a solution of **Pyrogel® 2250** that was only 2 mm thick, met all the boot's requirements, and offered better thermal performance than Thinsulate.
- Pyrogel 2250 was integrated into the insole, toe, heel, upper boot, and ankle area, completely encapsulating the foot in aerogel.

Benefits

- Pyrogel 2250 delivered excellent thermal performance even when compressed underfoot.
- Its 2 mm thickness throughout the boot was ideal for comfort while remaining an outstanding barrier to the severe cold and extreme high altitude conditions mountain climbers face.
- The aerogel solution allowed the customer to launch a boot brand featuring a new, revolutionary insulation material — creating buzz in the highly competitive consumer marketplace.

