



Product Used

Spaceloft™ 6250

Aerogel Heat Shielding Improves Bus Passenger Comfort With Less Volume

High-performance thermal barrier insulation is 22 mm thinner

Fabrication and Installation Partner

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Carpenter is a provider of innovative acoustic solutions and is a Golden Decibel Award finalist for the acoustic treatment of this bus line.



Challenges

- Insulation shielding of bus turbo engine compartment.
- The insulation was needed to reduce the temperature inside the rear of the bus and improve passenger comfort.
- Heat from engine elements, especially the turbo, was as high as 140°C (284°F).
- With engine compartments becoming increasingly compact, high-performance insulation with limited volume was required.
- The insulation solution had to resist diesel oil spills and high-pressure water cleaning.
- The insulation performance could not degrade over time.

Aerogel Solution

- Carpenter designed a solution of **Spaceloft™ 6250** encapsulated between two metalized polyester foils.
- Total thickness was 8 mm, compared to 30 mm of previous insulation.

Benefits

- Aerogel solution delivered required thermal performance while dramatically reducing insulation thickness by 22 mm.
- Encapsulated pieces were easily installed with rivets in high-temperature zones of engine compartment.



Encapsulated aerogel shaped pieces are easily installed with rivets in high-temperature zones of engine compartment, especially in the turbo area. Thickness savings of 22 mm with aerogel insulation valuable in tight engine compartment (shown on cover with engine installed). Bus is shown below.

