SELECTING THE RIGHT STRUCTURAL INSULATION FOR YOUR APPLICATION

Frequently Asked Questions

HI-TEMP FABRICATION
DIFFERENCES BETWEEN TRANSITE 1000 AND NAD-11
Things to Consider When Selecting The Best Structural Insulation

Are you trying to choose which insulation product is right for your application where high strength, thermal stability, electrical insulation and/or machinability are required? Let’s compare the key properties of two popular options and provide a comparison to assist in your decision-making process.

Hi-Temp Fabrication Services

We are a fabricator of a wide range of specialty insulation products and boards. Sold worldwide to aluminum, steel, glass, furnace, refractory, electrical and petrochemical Industries.

We fabricate insulation boards, panels, blankets and rolls as well as laboratory surfaces.

We offer a wide range of laboratory counter-tops and surfaces. These surfaces are used in laboratories, classrooms, and offices.

Peerless Hi-Temp Fabrication can help you make the right decision for your company and fabricate to your specifications using our licensed state-of-the-art CAM/CAD software program.
**TRANSITE 1000 vs. NAD-11?**

1. **Common Applications**
   Both can be used to insulate load-bearing gaskets, as spacers, supports, laboratory benchtops, collars, bushings, transformer spacers, or even industrial oven shelving or soldering plates.

2. **Composition**
   Transite 1000 is monolithic non-asbestos fiber cement board. NAD-11 is glass-mica-quartz non-asbestos cement board.

3. **Cost**
   Cost comparison differs based on thickness. For a 1” thick board, the price per square foot for Transite 1000 is approximately 7% higher than NAD-11.

   Conclusion: Transite 1000 is more expensive than NAD-11.

4. **Temperature**
   Transite 1000 is non-combustible and can withstand operating temperatures up to 1000°F whereas NAD-11 is suitable for applications requiring continuous operation in temperatures up to 932°F.

   Conclusion: NAD-11 begins to break down at a lower temperature than Transite 1000.

5. **Density and Compressive Strength**
   The density of NAD-11 is 109 pounds per cubic foot with compressive strength of 17,110 pounds per square inch. The density of Transite 1000 is 98 pounds per cubic foot with compressive strength of 13,350 pounds per square inch.

   Conclusion: NAD-11 is heavier, stronger and more load-bearing than Transite 1000 which is lighter.
**Transite 1000 vs. NAD-11?**

6 **Thermal Conductivity**

Transite 1000's thermal conductivity is 2.40 btu-in/(hr-°F-ft²) @ 250° F where NAD-11’s thermal conductivity is 2.57 btu-in/(hr-°F-ft²) @ 212° F.

Conclusion: Transite 1000 has a lower conductivity at a higher temperature.

Said differently, less heat travels through Transite 1000 than NAD-11 at the same temperature.

8 **Available Sizes & Thicknesses**

NAD-11 is available in 48 x 36 in boards with thicknesses of 0.25 to 3.0 inches whereas Transite 1000 is available in 48 5/8 x 96 5/8 in boards with thicknesses of 0.25 to 3.0 inches.

Conclusion: Both are available in the same thicknesses; however, sheet stock of Transite 1000 contains an additional 20 square feet per board compared to NAD-11.

7 **Handling, Engineering Controls**

If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Power equipment should be fitted with a properly designed dust collection device. SDS sheets are available upon request.
"Are you trying to choose which insulation product is right for your application where high strength, thermal stability, electrical insulation and/or machinability are required? Check out our comparison of two popular options for structural insulation."

-Jon Gentile, Peerless Hi-Temp Fab

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