



NI IB 40 – Industrial Board 40 is a High Temperature Industrial Board Insulation. It is made from a higher density, semi-rigid stone wool insulation board designed specifically for use in high temperature industrial applications at temperatures up to 1200°F (649°C). NI IB 40 Insulation is best suited for use in industrial applications such as equipment at thermal electric power plants, oil refineries, chemical plants, and steam generating facilities.

NI IB 40 Insulation meets building fire codes for flame and smoke developed and for fire resistance and will not develop toxic smoke, even when exposed directly to a fire. NI IB 40 Insulation has excellent acoustical properties and because the products are dimensionally and chemically stable, they maintain thermal performance over their lifetime. This contributes to the optimal performance of an industrial facility.

### **Description**

NI IB 40 Insulation is an inorganic mineral fiber insulation material that is produced from basalt volcanic rock. It is non-combustible, nondeteriorating, moisture resistant, dimensionally stable, noncorrosive, and non-mildew supporting. It has a high fiber with a low non-fibrous content and a very low organic binder. It maintains a consistent density throughout its designed life cycle. It is rated for continuous exposure on surfaces up to 1200°F (649°C).

## Installation

NI IB 40 Insulation is easy to install. It is easily cut and formed with a knife and will not break or crack if dropped. It is also compressible and resilient, allowing it to be squeezed into tight spaces as required.

## Packaging

NI IB 40 Insulation is packaged in a poly film shrink wrap.

## Design Considerations

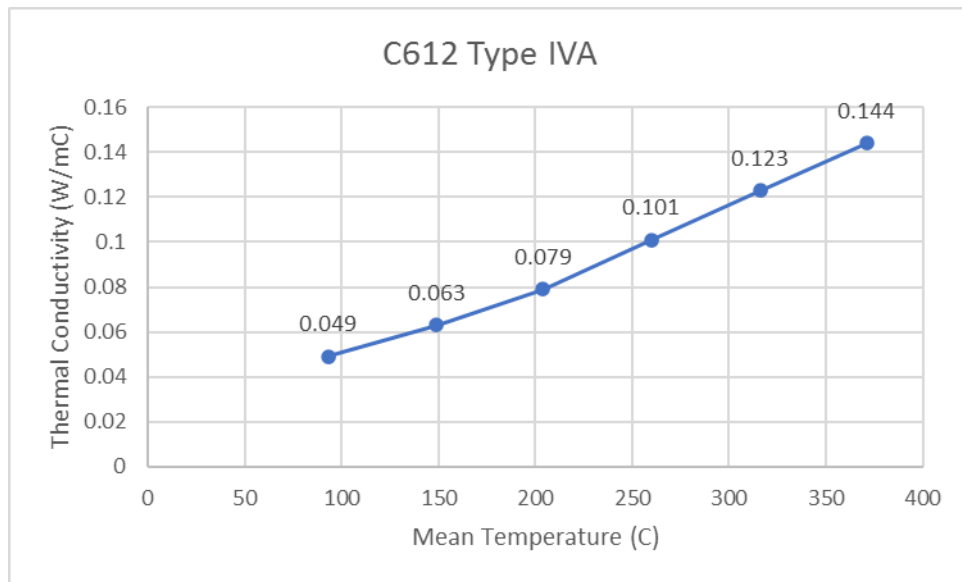
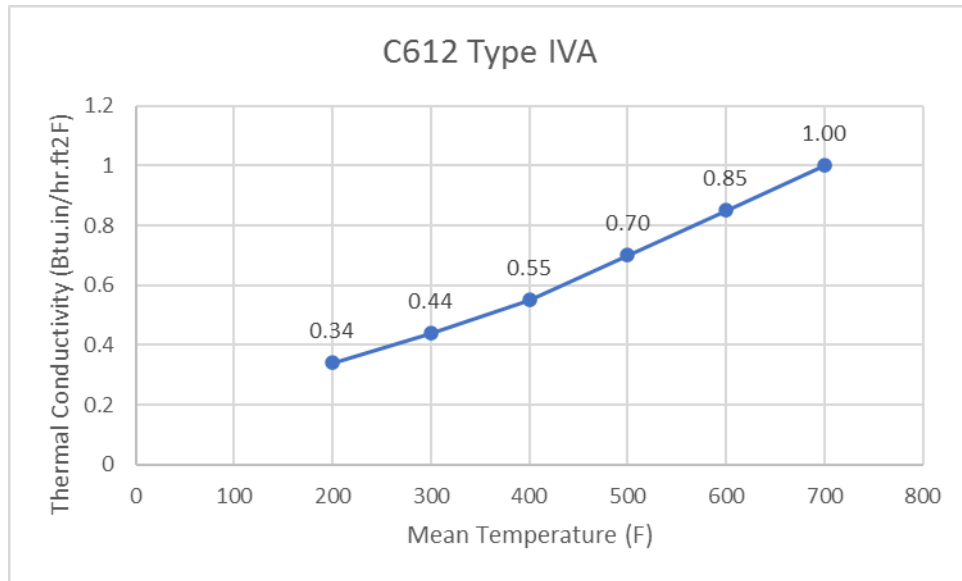
NI IB 40 Insulation can be used in high temperature applications on piping and equipment that operate continuously at temperatures up to 1200°F (649°C). Determination of insulation thickness can be made using industry standard calculational software such as 3E Plus®. While not specifically designed as pipe insulation, this board insulation material can be fabricated into pre-formed pipe insulation sections for specific pipe diameters and thicknesses. However, the procedures for doing this are beyond the scope of this data sheet.

**NI IB 40 Insulation is a medium weight, semi-rigid stone wool insulation board designed specifically for use on industrial equipment.**

Property	Performance / Characteristic	Test Standard
Compliance	Mineral Fiber Block and Board Thermal Insulation - Type IVB Compliant	ASTM C612
Density	Actual density 4 lbs/ft <sup>3</sup> (64 kg/m <sup>3</sup> ) Nominal 6 lbs/ft <sup>3</sup>	ASTM C303
Reaction to Fire	Flame Spread / Smoke Developed 0 / 0	ASTM E84
	Flame Spread / Smoke Developed 0 / 0	CAN/ULC S102
	Non-combustible	CAN/ULC S114-5 / ASTM E136
	Hot Surface Performance - 1200°F	ASTM C411
Corrosion Resistance	Stress Corrosion Cracking/Corrosion of Steel – Passed	ASTM C795 / ASTM C665
Thermal Resistance	R-Value for 1 inch (25 mm) thickness @ 75°F (24°C) mean temperature: 4.2 hr-ft <sup>2</sup> -°F/Btu (0.74 m <sup>2</sup> -°K/W)	ASTM C518
Water vapor sorption	0.01%	ASTM C1104
Thicknesses / Dimensions	1”- 4” (25, 50, 75, and 100 mm) thick in 1” (25 mm) increments; 24” x 48” (610 mm x 1219 mm) boards	NA

Note: Thicknesses greater than 4” (100 mm) may be available upon request.

Product specification conforms to C612, tested per ASTM C177 and C518.



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Last revision: March 6<sup>th</sup> 2025