



NI IB 80 – Industrial Board 80 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 80 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 80 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 80 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 80 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 80 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 80 Insulation is packaged in a poly film shrink wrap.

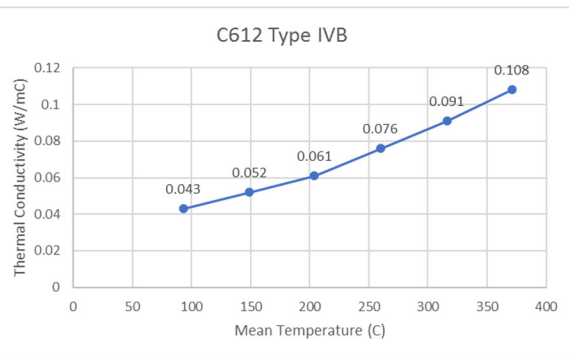
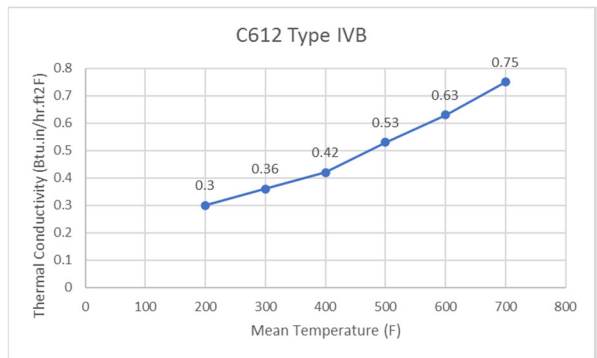
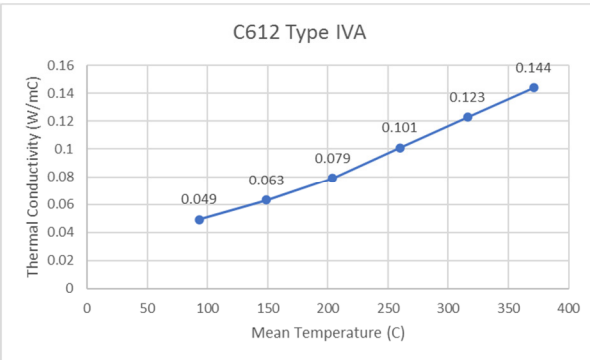
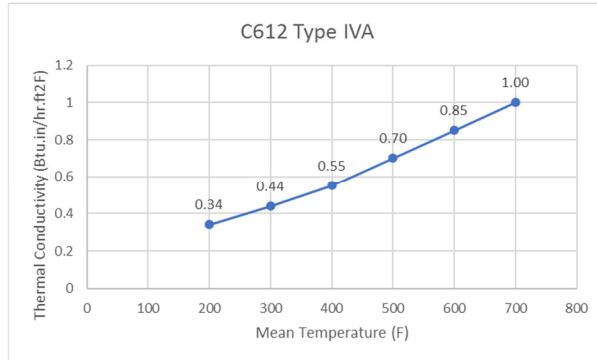
Design Considerations

NI IB 80 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 80 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 8 lbs/ft ³ (128 kg/m ³) Nominal 10 lbs/ft ³	ASTM C303
High Temperature Performance	1200°F (649°C)	ASTM C411
Reaction to Fire	Flame Spread / Smoke Developed 0 / 0	ASTM E84
	Flame Spread / Smoke Developed 0 / 0	CAN/ULC S102
Non-combustibility	Non-combustible	CAN/ULC S114-5
Thermal Resistance	R-Value for 1 inch (25 mm) thickness @ 75°F (24°C) mean temperature: 4.2 hr-ft ² -°F/Btu (0.74 m ² -°K/W)	ASTM C518
Linear shrinkage	< 1% at 1200°F (649°C)	ASTM C356
Water vapor sorption	0.01% by weight / 0.0% by volume	ASTM C1104
Fungi resistance	Passes	ASTM C1338
Odor emission	Passes	ASTM C1304
Compressive Resistance	> 155 psi (7.5 kPa) at 10% deformation	ASTM C165
Non-fibrous content	< 12%	ASTM C1335
Corrosiveness to steel	Passes	ASTM C1936, ASTM 665
Thickness / Dimensions	1 to 4” thick x 24” or 36” wide x 48	NA

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



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