

Technical Data Sheet NI S40



NI S40 - Safing Insulation is a lightweight, semi-rigid stone wool insulation board designed specifically for use in fire stopping applications. It can be used to fill perimeter gaps between concrete floor slabs and exterior wall systems. It can also be used to fill gaps in rated walls, floor/ceiling assemblies. It is also used in pipe and duct penetrations through walls and floor slabs.

NI S40 Safing Insulation meets building fire codes for flame and smoke development and for fire resistance. It will not develop toxic smoke, even when exposed directly to a fire. It should be installed per the listed assembly with adequate compression to form a tight seal so that flame and hot gases cannot pass through the joint.

NI S40 Safing 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 a building fire stopping insulation system.

Description

NI S40 Safing Insulation is an inorganic mineral fiber insulation material that is produced from basalt volcanic rock and 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 it's designed life cycle.

Installation

NI S40 Safing Insulation is easy to install. It can be 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 to form a tight seal between floors and exterior wall assemblies.

Packaging

NI S40 Safing Insulation comes packaged in a poly film shrink wrap.

Design Considerations

NI S40 Safing Insulation can be used in fire-rated wall assemblies although the exact assembly may require further testing to comply with building codes. The use of such a wall does not preclude the need for active fire suppression systems. For acoustical applications, requiring a particular STC rating, further testing of the exact wall assembly may be required since product thickness and drywall thickness, as well as stud type and spacing, can affect test results.

NI S40 Safing Insulation is a lightweight, semi-rigid stone wool insulation board designed for use in fire stopping insulation systems.

Property	Performance / Characteristic	Test Standard
Compliance	Mineral Fiber Block and Board Thermal Insulation - Type IVA Compliant	ASTM C612
Density	Actual density 4 lbs/ft³ (64 kg/m³)	ASTM C303
Flame and Smoke	Flame Spread / Smoke Developed 0 / 0	ASTM E84 and CAN/ULC S102
Non-combustibility	Passes non-combustible requirements	CAN/ULC S114
	Test for non-combustability – non=-combustible	ASTM E136
	Fire Test of Firestop systems	ASTM S115
	Fire Tests of Penetration Firestop Systems	ASTM E814
	Perimeter Fire Barrier Systems	ASTM E2307
Thermal Resistance	R-Value @ 75°F (24°C) mean temperature: 4.2 hr-ft²-°F/Btu (0.74 m²-°K/W) for 1 inch (25 mm) thickness	ASTM C518
Corrosion Resistance	Stress Corrosion Cracking Tendency of Austenitic Stainless Steel – Passed Corrosion of Steel - Passed	ASTM C795 ASTM C665
Water vapor sorption	0.1%	ASTM C1104
Fungi resistance	Passed	ASTM C1338
Non-fibrous content	< 12%	ASTM C1335
Thicknesses /	2", 3" and 4" (25, 50, 75, and 100 mm) thick in 24" x	NA
Dimensions	48" (610 mm x 1219 mm) boards	

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

North Insulation Solutions Inc has no control over installation design and workmanship, accessory materials, or application conditions. North Insulation Solutions Inc does not guarantee the performance or results of any installation containing these products. North Insulation Solutions Inc's overall liability and the remedies available are limited by the general terms and conditions of sale. This warranty is in lieu of all other warranties and conditions expressed or implied, including the warranties of merchantability and fitness for a particular purpose.

Distribution centre

405 Mayfield Rd, Warrenton, GA, USA, 30828

Toll Free: 1 (833) 208-4147 Last revision: March 8, 2025