



NI WW 45 - Window Wall 45 Insulation is a lightweight, semi-rigid stone wool insulation board designed specifically for use in window and wall systems and is best suited for use with back-pans or mechanical fastened applications and acceptable for Rainscreen masonry applications. NI WW 45 Insulation meets building fire codes for flame and smoke development and fire resistance and will not develop toxic smoke, even when exposed directly to a fire. NI WW 45 insulation has excellent acoustic properties. Because the products are dimensionally and chemically stable, they maintain thermal performance over their lifetime. This contributes to the optimal performance of a building envelope.

Description

NI WW 45 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.

Installation

NI WW 45 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 WW 45 Insulation is packaged in a poly film shrink wrap.

Design Considerations

NI WW 45 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 or detection systems. A sheet or film vapor retarder, adhered to one face of the boards, may be needed for exterior wall applications, and should be specified by the architect or engineer for the building project. For acoustical applications requiring a particular STC rating, further testing of the exact wall assembly may be required since product thickness and dry wall thickness and stud spacing, can affect test results.

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Property	Performance / Characteristic	Test Standard
Compliance	Mineral Fiber Block and Board Thermal Insulation - Type IVB Compliant	ASTM C612
Density	Actual density 4.5 lbs/ft ³ (72 kg/m ³) Nominal 6 lbs/ft ³	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
	Non-Combustible	ASTM E136
	Hot Surface Performance - 1200°F	ASTM C411
	Perimeter Fire Barrier Systems	ASTM E2307/E119
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%	ASTM C356
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 / Dimensions	1” – 6” thick in ½” (25 mm) increments, 24” x 48” (610 mm x 1219 mm) boards	NA

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.

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