QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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BUILDING PRODUCT LISTING PROGRAM

Customer: Norbec Architectural Inc.
Class: Insulated Metal Panels
Location: Boucherville, Quebec, Canada
Website: www.norbecarchitectural.com

Listing No. B1096-1
Project No. B1096-1 Edition 3

Effective Date: December 14, 2016
Last Revised Date: October 30, 2020
Expires: N/A

Standards:

CAN/ULC S102	*Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.*
CAN/ULC S126	*Standard Method of Test for Fire Spread Under Roof-Deck Assemblies.*
CAN/ULC S138	*Standard Method of Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration.*
CAN/ULC S101	*Standard Methods of Fire Endurance Tests of Building Construction and Materials.*
CAN/ULC S134	*Standard Method of Fire Test of Exterior Wall Assemblies.*
ASTM E84	*Standard Test Method for Surface Burning Characteristics of Building Materials*
ASTM D1929	*Standard Test Method for Determining Ignition Temperatures of Plastic*.

Product: NOREX-L, NOREX-H, NOREX-S Insulated Metal Panels (IMP) with Polyisocyanurate Core

Markings: Each panel is marked with a permanent label containing the following information:

a) Manufacturers name or recognized trademark
b) Product name
c) Date of manufacture
d) QAI file number: B1096
e) CAN/ULC S102 / ASTM E84 Flame Spread Index and Smoke Developed Indices as noted in this listing.
f) QAI logo shown here:

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Models / Ratings: NOREX IMP have the following ignition properties determined in accordance with ASTM D1929:

Ignition Properties	
Flash Ignition Temperature:	≥ 600°+F (316°C)
Spontaneous Ignition Temperature:	≥ 800°+F (427°C)

NOREX IMP surface burning characteristics determined in accordance with CAN/ULC-S102:

Model(s)	Flame Spread Index	Smoke Developed Index	Thickness Max. (mm)	Density Max. (kg/m^3)
NOREX-L, NOREX-H, NOREX-S (w/o Steel Skin)	≤ 500[1]	≤ 175	152	41.6
NOREX-L, NOREX-H, NOREX-S (with Steel Skin)	≤ 25	≤ 100	152	41.6

Note 1: *Flame spread index determined in accordance with CAN/ULC S127.*

NOREX IMP surface burning characteristics complying with CAN/ULC S126:

Model(s)	Results	Thickness Max. (mm)	Density Max. (kg/m^3)
NOREX-L, NOREX-H, NOREX-S	Complies	152	41.6

NOREX IMP surface burning characteristics determined in accordance with ASTM E84:

Model(s)	Flame Spread Index	Smoke Developed Index	Maximum Thickness (inches)	Density Max. (lbs/ft^3)
NOREX-L, NOREX-H, NOREX-S (w/o Steel Skin)	≤ 25	≤ 450	6	2.6
NOREX-L, NOREX-H, NOREX-S (with Steel Skin)	≤ 10	≤ 450	6	2.6

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NOREX IMP products ratings determined in accordance with CAN/ULC-S138:

QAI Design #	Model(s)	CAN/ULC-S138 Details
B1096-1a[2]	NOREX-L, NOREX-H, NOREX-S to maximum 152 mm (6 inches) thickness	Sprinklered Room Compliant when equipped with 68°C (155°F) activation temperature, pendant style listed sprinklers. Fastener at top and bottom panels for panel connection are required. Corners treated with flashing, mechanically secured. Silicone sealant applied at panel and ceiling joint intersections.

Note 2: *The above assembly has been evaluated and found compliant for Protection of Foam Plastic in Combustible Construction as outlined in Section 3.1.4.2 of the 2015 National Building Code of Canada (NBC).*

The above assembly has been evaluated and found compliant for Factory Assembled Panels for use in Non-Combustible Construction for buildings that are sprinklered, < 18 meters high, have no Group A Group B or Group C major occupancies, with the panel having no air spaces, as outlined in Section 3.1.5.7 of the 2015 NBC and where panels are used in application where flame spread ratings required are ≤ 10..

NOREX IMP products evaluated to CAN/ULC S134:

NOREX Panels CAN/ULC S134				
QAI Design #	Flame Spread	Heat Flux at 3.5 m	Maximum Thickness	Maximum Density (kg/m^3)
B1096-1b[3]	< 5.0 m	< 35 kW/m^2	152 mm (6 inches)	41.6

Note 3: *The above assembly has been evaluated and found compliant for use as combustible cladding in non-combustible construction as required by Section 3.1.5.5 of the 2015 National Building Code of Canada.*

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NOREX IMP evaluated to CAN/ULC-S101 10-minute stay in place when used as wall panels:

QAI Design #	Model(s)	Fire Endurance	Openings
B1113-1c[4]	NOREX-H NOREX-S NOREX-L Maximum 152 mm (6 inches)	10 Minutes	No Openings Developed.

Note 3: *The above assembly has been evaluated and found compliant to Section 3.1.5.12 of 2015 National Building Code of Canada, for exterior wall assemblies containing combustible insulation with flame spread of > 25 and < 500, for use in non-combustible construction of > 18 m height non sprinklered where the conditions of this section of the National Building Code of Canada are met.*

Notes:

Products must be installed with the manufacturer's installation instructions and in accordance with the building codes recognized by the authority having jurisdiction.

Listed manufacturers are subject to on-going inspections by QAI to ensure that the products outlined above remains as it is listed.

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