



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 6

Effective Date: December 14, 2016
Last Revised Date: March 9, 2022
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.*
NFPA 285 *Standard Fire Test Method for Evaluation for Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components.*
NFPA 259 *Standard Test Method for Potential Heat of Building Materials.*
NFPA 286 *Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.*

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

NOREX-L can be supplied with or without a factory-applied gasket to the IMP joint. The approved gaskets are available in polyvinyl chloride (PVC) or silicone.

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

- Manufacturer's name or recognized trademark
- Product name
- Date of manufacture
- QAI file number: B1096
- CAN/ULC S102 / ASTM E84 Flame Spread Index and Smoke Developed Indices as noted in this listing.
- QAI logo shown here:



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 Maximum mm (inches)	Density Max. kg/m ³ (lbs/ft ³)
NOREX-L, NOREX-H, NOREX-S (w/o Steel Skin)	≤ 500 ¹	≤ 175	204 (8)	41.6 (2.6)
NOREX-L, NOREX-H, NOREX-S (Evaluated With Steel)	≤ 25 ²	≤ 100	204 (8)	41.6 (2.6)

Note 1: Flame spread index determined in accordance with CAN/ULC S127 for the foam core without steel skins.

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).

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

Model(s)	Results	Thickness Maximum mm (inches)	Density Max. kg/m ³ (lbs/ft ³)
NOREX-L, NOREX-H, NOREX-S	Complies	204 (8)	41.6 (2.6)

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

Model(s)	Flame Spread Index	Smoke Developed Index	Maximum Thickness inches (mm)	Density Max. lbs/ft ³ (kg/m ³)
NOREX-L, NOREX-H, NOREX-S (w/o Steel Skin)	≤ 25	≤ 450	8 (204)	2.6 (41.6)
NOREX-L, NOREX-H, NOREX-S (Evaluated With Steel Skin)	≤ 25	≤ 100	8 (204)	2.6 (41.6)

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

QAI Design #	Model(s)	CAN/ULC-S138 Compliant Assembly
B1096-1a³	NOREX-L, NOREX-H, NOREX-S to maximum 204 mm (8 inches) thickness	<p>Sprinklered Room Compliant when equipped with 68°C (155°F) activation temperature, pendant style listed sprinklers.</p> <p>Fastener at top and bottom panels for panel connection are required. Corners treated with flashing, mechanically secured.</p> <p>Silicone sealant applied at panel and ceiling joint intersections. Optional, between panels joints can contain factory applied PVC or silicone gaskets.</p>

Note 3: *The above assembly has been evaluated and found compliant per 2015 NBC Section 3.1.5.7 Factory-Assembled Panels Clause 1) 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, and where panels are used in application where flame spread ratings 10 – 150 are required.*
 Flame spread rating of ≤ 25 is noted as NOREX with joint ratings determined per CAN/ULC S102.

NOREX IMP products ratings determined in accordance with NFPA 286:

Model(s)	NFPA 286 Compliant Assembly
B1096-1a⁴	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 is optional. Optional, between panels joints can contain factory applied PVC or silicone gaskets.

Note 4: *The above assembly has been evaluated and found compliant with 2018 / 2015 IBC Section 2603.9 Special Approval, for installation without a code prescribed thermal barrier through compliant testing to NFPA 286 in an end use configuration.*

NOREX panels products evaluated to CAN/ULC S134:

NOREX Panels CAN/ULC S134					
QAI Design #	Model(s)	Maximum Thickness	Flame Spread	Heat Flux at 3.5 m	Maximum Density kg/m ³ (lbs/ft ³)
B1096-1b⁵	NOREX-H NOREX-L	4 inches (102 mm) 8 inches (204 mm)	< 5.0 m	< 35 kW/m ²	41.6 (2.6)

Note 5: *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.*

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

NOREX Panels CAN/ULC S101 10 Minute Stay in Place ⁶				
QAI Design #	Model(s)	Maximum Thickness	Maximum Duration	Openings
B1096-1c	NOREX-H NOREX-S NOREX-L	204 mm (8 inches)	10 minutes	No Openings Developed

Note 6: *The above assembly has been evaluated and found compliant per 2015 NBC Section 3.1.5.7 Factory-Assembled Panels Clause 2) for use in Non-Combustible Construction for buildings that are < 18 meters high, have no Group B or Group C major occupancies, with the panel having no air spaces, and where panels are used in application where flame spread ratings 10 – 150 are required. Flame spread rating ≤ 25 is noted as NOREX with joint ratings determined per CAN/ULC S102.*

NOREX IMP products evaluated to NFPA 285:

NOREX Panels NFPA 285				
QAI Design #	Model(s)	Maximum Thickness	Potential Heat of Combustion ⁶	Maximum Density lbs/ft ³ (kg/m ³)
B1096-1d	NOREX-H	4 inches (102 mm)	11,350 Btu/ft ²	2.6 (41.6)
	NOREX-L	8 inches (204 mm)		

Note 6: *Potential Heat of Combustion determined in accordance with NFPA 259.*

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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