

CLIENT: **QUIK-THERM INSULATION SOLUTIONS**
1680 Sargent Ave, Unit 3
Winnipeg, MB
R3H 0C2

Test Report No: T1035-4

Report Date: July 30, 2018

SAMPLE ID: 152 mm (6 inches) Quik-Therm Solar Dry Insulation with plywood strapping and horizontal fiber cement board lap siding, described as non-combustible.

SAMPLING DETAIL: The client submitted samples directly to QAI. The samples were received in good condition at QAI Burnaby.

DATE OF RECEIPT: The panels were received on July 24, 2018 in good condition.

TESTING PERIOD: July 25, 2018.

AUTHORIZATION: QAI Test Proposal Number 18MB05023R5, signed and dated on July 11, 2018, by Raymond Belanger.

TEST PROCEDURE: Testing was conducted following the time temperature curve of CAN/ULC S101 to the following requirements:

- National Building Code of Canada 2015 (NBC), Article 3.2.3.8. Protection of Exterior Building Face, Sentence 2.

TEST RESULTS: The Quik-Therm wall assembly met the requirements of Article 3.2.3.8. Sentence 2 when exposed to the time temperature curve of CAN/ULC S101 for 15 minutes duration no opening of the non-combustible fiber-cement lap siding were observed.

Prepared By



Scott Leduc, EIT
Project Manager

Signed for and on behalf of
QAI Laboratories, Ltd.



Matt Lansdowne
Director of Engineering

Introduction:

This report documents the fire testing conducted by QAI Laboratories Ltd. for Quik-Therm Insulation Solutions of a 152 mm (6 inches) Quik-Therm Solar Dry Insulation with plywood strapping and non-combustible horizontal fiber cement board lap siding.

Testing was conducted following the time temperature curve of CAN/ULC-S101 to the requirements of the NBC Article 3.2.3.8. Sentence 2. The wall was evaluated on July 25, 2018.

Assembly Description:

Table 1: Wall Description

COMPONENT	DESCRIPTION	
Assembly	Size:	2.74 m (9 ft.) high by 3.66 m (12 ft.) wide by 346 mm (13.63 in.) thickness.
	Type:	Quik-Therm 152 mm (6 inches) thickness, composed of expanded polystyrene insulation.
Framing	Type:	SPF Grade 2 lumber.
	Size:	38 mm by 140 mm (Nominal 2 in. by 6 in.)
	Spacing:	16 in. On Center (OC)
Exterior Sheathing	Type:	Oriented Strand Board (OSB)
	Dimensions:	1.22 m (4 ft.) by 2.44 m (8 ft.) by 11 mm (0.44 in.) thick.
	Fastener Detail:	The boards were mounted horizontally and fastened using 2 in. nails spaced 152 mm (6 in.) on the perimeter and 305 mm (12 in.) in the field.
Weather Barrier	Manufacturer:	Dupont.
	Product:	Tyveck HomeWrap.
	Fastener Detail:	Mounted horizontally to the OSB using staples spaced approx. 760 mm (30 in.) along the top and bottom.
Exterior Insulation	Type:	Quik-Therm Type 2 Expanded Polystyrene with foil scrim.
	Dimensions:	1.22 m (4 ft.) by 2.44 m (8 ft.) by 152 mm (6 in.) thick.
	Manufacturer:	Quik-Therm Insulation Solutions
	Product:	Solar Dry Insulation (SDI)
	Fastener Detail:	Fastened at each stud location with 51 mm (2 in.) by 19 mm (0.75 in.) strapping and No. 12 by 254 mm (10 in.) U2 Universal Screws spaced 406 mm (16 in.) OC
Protective Cladding	Type:	Fiber Cement board lap siding, rated non-combustible.
	Size:	159 mm (6.25 in.) wide by 3.66 m (12 ft.) long by 8 mm (0.31 in.), 127 mm (5 in.) exposure.
	Manufacturer:	James Hardie
	Product:	HardiePlank Lap Siding
	Fastener Detail:	2 in. common nails at each strapping location approximately 25 mm (1 in.) from the top of the board. 3 vertical joints in the cement board siding were spaced equally across the surface of the assembly.

The wall assembly was tested with the exterior face oriented towards the fire.