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Determination of Non-Combustibility of "Synstone FR Panel"

A Report To:	Concrete Cladding Systems 2368 Dunwin Drive Mississauga, Ontario L5L 1J9
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E-mail:	bryant@synstone.com
Attention:	Bryant Halliday
Submitted By:	Fire Testing
Report No.	11-002-470(A) 3 pages
Date:	July 22, 2011

ACCREDITATION To ISO/IEC 17025 for a defined Scope of Testing by the International Accreditation Service

SPECIFICATIONS OF ORDER

Test for non-combustibility in accordance with CAN4-S114-05 "Standard Method of Test for Determination of Non-Combustibility in Building Materials", as per your your Purchase Order #1296 and our Quote No. 11-006-06658-S accepted July 5, 2011.

IDENTIFICATION

Composite material, nominally ½" in thickness and identified as "Synstone FR Panel, Smooth Finish".

(Exova sample identification number 11-002-S0470)

SUMMARY OF TEST PROCEDURE

A specimen of known mass, measuring 51 mm long, 38 mm wide and 38 mm thick, is placed inside an electrically heated tube furnace stabilized at 750 °C. A material is considered to be non-combustible if it meets all the following criteria:

- A) The mean of the maximum temperature rise for the three (or more) specimens of the sample during the test does not exceed 36 C deg; and
- B) There is no flaming of any of the three (or more) specimens during the last 14 minutes and 30 seconds of the test; and

Note: Any surface flash, transitory flaming or sustained flaming constitutes flaming for the purposes of this requirement.

- C) The maximum weight loss of any of the three (or more) specimens during the test does not exceed 20 percent.

SAMPLE PREPARATION

The material was received as individual specimens measuring 38 mm by 38 mm by 14 mm. Four specimens were stacked and held together using thin gauge nichrome wire to get the requisite test specimens. The specimens were then dried at a temperature of 60 ± 3°C for a 24 h to 48 h period and allowed to cool to room temperature in a dry atmosphere prior to testing.

TEST RESULTS

CAN4-S114-05

Standard Method of Test for Determination
of Non-Combustibility in Building Materials

<u>Trial</u>	<u>Maximum Temperature Rise (C deg)</u>	<u>Flaming During Last 14:30 min.?</u>	<u>Initial Weight(g)</u>	<u>Final Weight (g)</u>	<u>Percent Weight Loss</u>
1	**	No	154.60	141.42	8.5
2	**	No	147.89	134.83	8.8
3	0.0	No	147.21	134.40	8.7
4	**	No	155.48	141.07	9.3
Mean:	0.0				
Maxima Specified by CAN4-S114:	36 (mean)	No			20.0 (individual)

** The temperature never exceeded the initial stabilized furnace temperature.

CONCLUSIONS

The composite material identified in this report meets all of the specified criteria and therefore can be classified "non-combustible", as defined by CAN/ULC-S114.

Note: This is an electronic copy of the report. Signatures are on file with the original report.

Mel Garces,
Fire Testing.

Ian Smith,
Fire Testing.

Note: This report and service are covered under Exova Canada Inc. Standard Terms and Conditions of Contract which may be found on the Exova website (www.exova.com), or by calling 1-866-263-9268.