

P: 1 905 822 4111 F: 1 905 823 1446 info.toronto.fire@element.com element.com

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Determination of Non-Combustibility of "Alumitex Aluminum Plate"

A Report To: **Ontario Panelization** 530 Admiral Drive London, ON Canada N5V 0B2 Phone: +1 (519) 659-8900 Attention: **Hugh Lowry** E-mail: hlowry@ontariopanelization.com Submitted by: **Element Fire Testing** Report No. 20-002-229 3 Pages

May 7, 2020

Date:



CAN/ULC-S114 Testing of "Alumitex Aluminum Plate"

element

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

2.0 SPECIFICATIONS OF ORDER

Test for non-combustibility in accordance with CAN/ULC-S114:2018 "Standard Method of Test for Determination of Non-Combustibility in Building Materials", as per Ontario Panelization reference Purchase Order #7485-Al Plate Fire Testing and Element Quotation No. 20-002-165117 accepted April 20, 2020.

3.0 SAMPLE IDENTIFICATION (Element sample identification number 20-002-S0229)

Aluminum plate, described as, "3mm Aluminum Plate (Al 3003)", identified as: "Alumitex Aluminum Plate"

4.0 SUMMARY OF TEST PROCEDURE

A specimen of known mass, measuring 50 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 Celsius degrees; and
- B) There is no flaming of any of the three (or more) specimens during the last 14.5 minutes of the test; and
 - Note: Any surface flash, transitory flaming or sustained flaming constitutes flaming for the purposes of this requirement.
- C) (i) The maximum weight loss of any of the three (or more) specimens during the test does not exceed 20 percent; or
 - (ii) The maximum weight loss of any of the three (or more) specimens during the test does not exceed 22 percent and the following two criteria are met for any of the three (or more) specimens during the test:
 - (a) The temperature above the specimen shall not rise above the stabilized furnace temperature at any time during the test; and
 - (b) No flaming from the specimens shall be observed at any time during the test.

5.0 SAMPLE PREPARATION

The material was received in sections, each approximately 38 mm x 3 mm. Each test specimen consisted of a stack of 16 supplied sections wired together. The test specimens were dried at a temperature of 60 ± 3 °C for a 24 h to 48 h period and were allowed to cool to room temperature in a dry atmosphere (desiccator cabinet) prior to testing.

6.0 SUMMARY OF TEST RESULTS

SAMPLE: "Alumitex Aluminum Plate"

CAN/ULC-S114:2018 Test Result:	Pass
CAN/ULC-S114 Classification:	Non-combustible

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7.0 TEST RESULTS

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

SAMPLE: "Alumitex Aluminum Plate"

Trial	Maximum Temperature Rise (°C)	Flaming During Last 14.5 minutes?	Specimen Initial Weight (g)	Specimen Final Weight (g)	Percent Weight Loss
1	**	No	197.80	197.79	0.01
2	**	No	197.96	197.96	0.00
3	**	No	198.44	198.44	0.00
Mean:	**	-	-	-	-
Specified Maxima	36 (mean)	No	-	-	20.0 (individual)

^{**} The temperature never exceeded the initial stabilized furnace temperature

8.0 OBSERVATIONS

In all cases, no ignition was observed.

9.0 CONCLUSIONS

The aluminum plate 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 uncontrolled electronic copy of the report. Signatures are on file with the original.

Mel Garces, Ian Smith,

Senior Technologist.

Technical Manager.

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