ALFREX, LLC
LETTER REPORT

SCOPE OF WORK
ULC-S135:2004-(REAFFIRMED 2016), *STANDARD TEST METHOD FOR THE DETERMINATION OF COMBUSTIBILITY PARAMETERS OF BUILDING MATERIALS USING AN OXYGEN CONSUMPTION CALORIMETER (CONE CALORIMETER)* ON ALFREX PLATE

REPORT NUMBER
104375589MID-001A

TEST DATE(S)
08/13/20

ISSUE DATE **[REVISED DATE]**
09/01/20 NA

PAGES
4

DOCUMENT CONTROL NUMBER
GFT-OP-10a (21-June-2019)

8431 Murphy Drive
Middleton, WI 53562
Telephone: 608-836-4400
Facsimile: 608-831-9279
www.intertek.com/building

LETTER REPORT FOR ALFREX LLC
Report No.: 104375589MID-001A
Date: 08/13/20

REPORT ISSUED TO

ALFREX, LLC
943 Gainesville Hwy.
Building 100-4000
Buford, GA 30518

Subject: Summary letter report for full report 104375589MID-001 on Alfex Plate.

Dear Julia Jun,

This letter report summarizes the results of our evaluation of Alfrex Plate to the requirements contained in the following standards:

The specimens were evaluated in accordance with the following:
ULC-S135:2004-(REAFFIRMED 2016), *Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)*; Underwriters Laboratories of Canada.

National Building Code Canada 2015 Volume 1 Noncombustible Material Section 3.3.5.1:

1) Except as permitted by Sentences (2) to (4) and Articles 3.1.5.2. to 3.1.5.24., 3.1.13.4. and 3.2.2.16., a *building* or part of a *building* required to be of *noncombustible construction* shall be constructed with *noncombustible* materials. (See also Subsection 3.1.13. for the requirements regarding the *flame-spread rating* of interior finishes.)

2) Notwithstanding the definition of *noncombustible* materials stated in Article 1.4.1.2. of Division A, a material is permitted to be used in *noncombustible construction* provided that, when tested in accordance with ULC-S135, "Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)," at a heat flux of 50 kW/m^2,

a) its average total heat release is not more than 3 MJ/m^2,
b) its average total smoke extinction area is not more than 1.0 m^2, and
c) the test duration is extended beyond the time stipulated in the referenced standard until it is clear that there is no further release of heat or smoke.

3) If a material referred to in Sentence (2) consists of a number of discrete layers and testing reveals that the surface layer or layers protect the underlying layers such that complete combustion of the underlying layers does not occur, the test shall be repeated by removing the outer layers sequentially until all layers have been exposed during testing, or until complete combustion has occurred.

4) The acceptance criteria for a material tested in accordance with Sentence (3) shall be based on the cumulative emissions from all layers, which must not exceed the criteria stated in Clauses (2)(a) and (b).

intertek
Total Quality. Assured.

8431 Murphy Drive
Middleton, WI 53562
Telephone: 608-836-4400
Facsimile: 608-831-9279
www.intertek.com/building

LETTER REPORT FOR ALFREX LLC
Report No.: 104375589MID-001A
Date: 08/13/20

SUMMARY

Intertek Building & Construction (B&C) was contracted by Alfrex, LLC to perform testing in accordance with ULC S135, *Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter),* on their Alfrex Plate. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek test facility in Middleton, WI.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens (where required by Certification or Accreditation bodies), or other pertinent project documentation, will be retained for the entire test record retention period.

SECTION 1
TESTING

The pre-painted aluminium panels with black on one surface and gray on the other surface were cut to 100 x 100 mm by the client. The black surface was the exposed surface that was tested. Specimens were conditioned to moisture equilibrium (constant mass) at an ambient temperature of 23 ± 3°C and a relative humidity of 50 ± 5%. The cone calorimeter test was run as written in ULC S135 section 8 – Procedure. The cone calorimeter calculations were performed as written in ULC S135 section 10 – Calculations.

SECTION 2
CONCLUSION

The black pained surface of the material passed the National Building Code Canada 2015 Volume 1 for noncombustible material section 3.3.5.1. The materials' total heat release was not more than 3 MJ/m^2, with an average value of 0.7 MJ/m^2. The materials' average total smoke extinction area was not more than 1.0 m^2, with an average value of 0.3 m^2.

There were no deviations to the ULC S135 standard.

For INTERTEK B&C:

COMPLETED BY:	Bryan Bowman	**REVIEWED BY:**	Mark Crawford
TITLE:	Chemist	**TITLE:**	Engineering Team Lead
SIGNATURE:		**SIGNATURE:**	
DATE:	09/01/20	**DATE:**	09/01/20

Please note: this Letter Report does not represent authorization for the use of any Intertek certification marks.

8431 Murphy Drive
Middleton, WI 53562
Telephone: 608-836-4400
Facsimile: 608-831-9279
www.intertek.com/building

LETTER REPORT FOR ALFREX LLC
Report No.: 104375589MID-001A
Date: 08/13/20

SECTION 3
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	09/01/2020	4	