



AMERICAN FLAMECOAT INC.

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ROYSONS CORP. – NON-VINYL TERRALON
DATE: 03.01.2018

AMERICAN FLAMECOAT, INC. has conducted testing for ROYSONS CORP. to evaluate the surface burning characteristics of NON-VINYL TERRALON.

Testing was conducted in accordance with the standard methods of CAN/ULC S102, Standard Method of Test for Surface Burning Characteristics of Ceiling and Miscellaneous Materials and Assemblies. This evaluation began February 14, 2018.

3 Test Samples: Samples were USED FOR TESTING. The sample materials were received at the Evaluation Center on 02.19.2018

SAMPLE AND ASSEMBLY DESCRIPTION

Upon receipt of the samples they were placed in a conditioning room where they remained in an atmosphere of $23 \pm 3^{\circ}\text{C}$ ($73.4 \pm 5^{\circ}\text{F}$) and $50 \pm 5\%$ relative humidity. The sample material was cut to 17 ½ in. wide by 8 ft long and adhered to a 6 mm thick inorganic GRC board using FR-Shur Stik wall covering adhesive. The samples are identified by the client as Roysons - NON-VINYL TERRALON. For each trial run, three 8 ft. lengths of sample material were attached to the ceiling with a layer of 6 mm reinforced cement board placed on the floor of the tunnel, the tunnel lid was lowered into place, and the samples were then tested in accordance with CAN/ULC S102.

Testing and Evaluation Methods

TEST STANDARD:

The results of the tests are expressed by indexes, which compare the characteristics of the sample under tests relative to that of select grade red oak and inorganic-cement board.

(A) Flame Spread Classification:

This index relates to the rate of progression of a flame along a sample in the 25-foot tunnel. A natural gas flame is applied to the front of the sample at the start of the test and drawn along the sample by a draft kept constant for the duration of the test. An observer notes the progression of the flame front relative to time. The test apparatus is calibrated such that the flame front for red oak flooring passes out the end of the tunnel in five minutes, thirty seconds (plus or minus 15 seconds).

(B) Smoke Developed:

A photocell is used to measure the amount of light, which is obscured by the smoke passing down the tunnel duct. When the smoke from a burning sample obscures the light beam, the output from the photocell decreases. This decrease with time is recorded and compared to the results obtained for red oak, which is defined to be 100.



Testing and Evaluation Results

RESULTS AND OBSERVATIONS

(A) Flame Spread The resultant flame spread classifications are as follows:
(Classification rounded to nearest 5)

NON-VINYL TERRALON	FLAME SPREAD	FLAME SPREAD CLASSIFICATION
RUN 1	1	0
RUN 2	0	
RUN 3	3	

(B) Smoke Developed

The areas beneath the smoke developed curve and the related classifications are as follows:
(Classification rounded to nearest 5)

NON-VINYL TERRALON	SMOKE DEVELOPED	SMOKED DEVELOPED CLASSIFICATION
RUN 1	43	40
RUN 2	38	
RUN 3	39	

(C) Observations

During the tests, the sample surface ignited at approximately 94 to 110 seconds; the flame began to progress along the sample until it reached the maximum flame spread.

RESULTS:

This test sample ***meets** the Canadian Standard – CAN/ULC S102

This test sample ***meets** the A.S.T.M. E-84 Standard

This test sample ***meets** the N.F.P.A. LIFE SAFETY CODE 101.



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Conclusion

The samples of NON-VINYL TERRALON submitted by ROYSONS CORPORATION, exhibited the following flame spread characteristics when tested in accordance CAN/ULC S102, Standard Method of Test for Surface Burning Characteristics of Ceiling and Miscellaneous Materials and Assemblies.

A series of three test runs was conducted to conform to the requirements of the National Building Code of Canada.

SAMPLE	FLAME SPREAD CLASSIFICATION	SMOKE DEVELOPED CLASSIFICATION
NON-VINYL TERRALON	0	40

SIGNED BY:

WILLIAM C. LAFFODAY
AMERICAN FLAMECOAT, INC.



CAN/ULC S102 DATA SHEETS

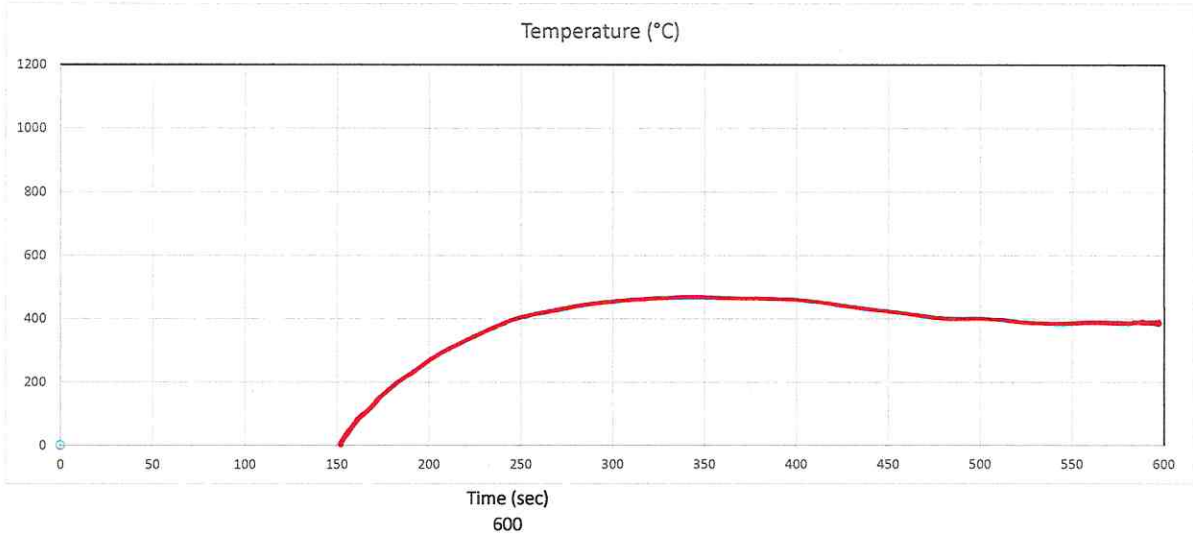
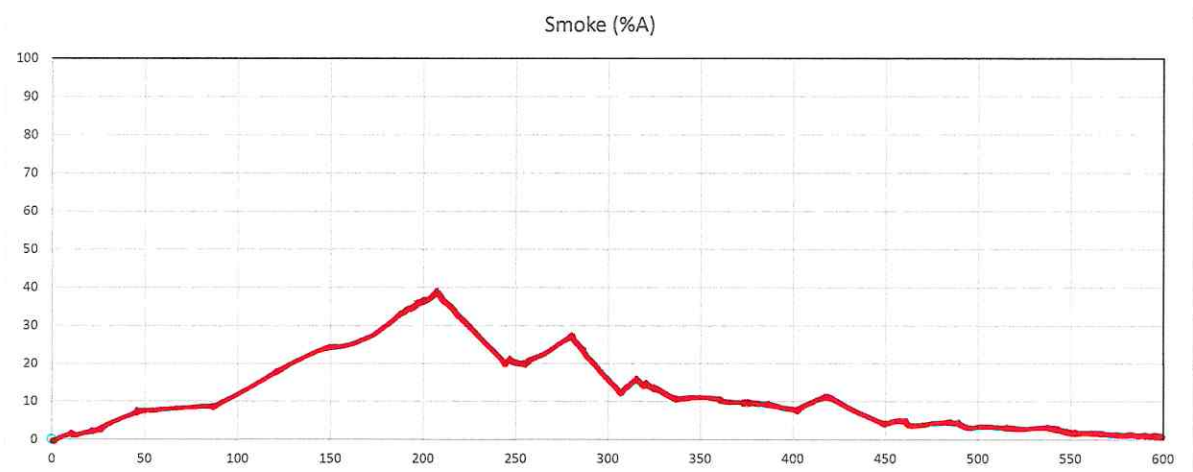
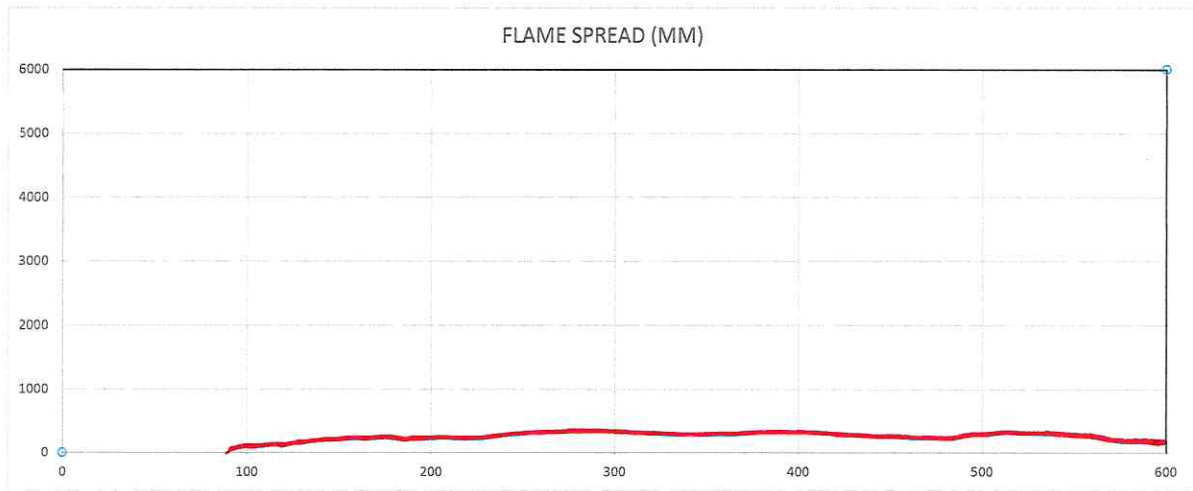
RUN 1

Client: ROYSONS CORP

Specimen ID: NON-VINYL TERRALON

Test No.: 61997-4

Standard: CAN/ULC S102



Time (sec)
600

CAN/ULC S102 DATA SHEETS

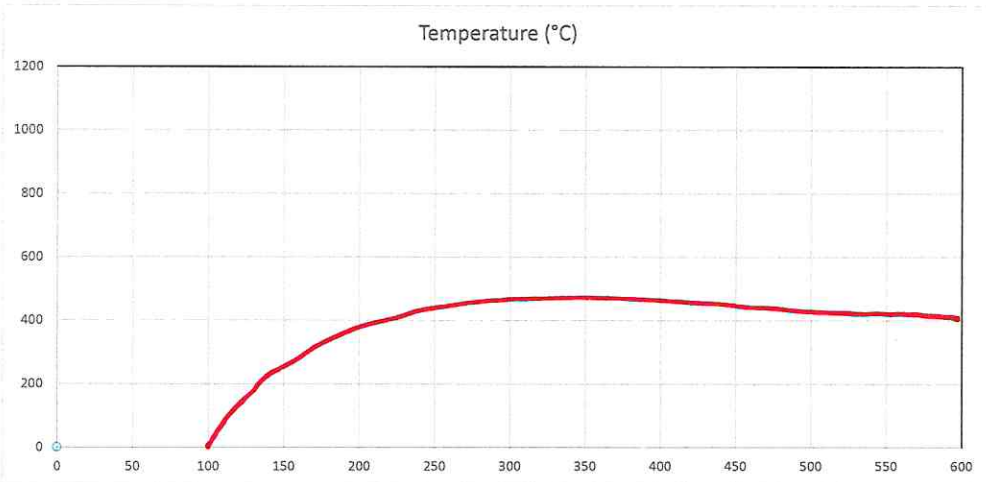
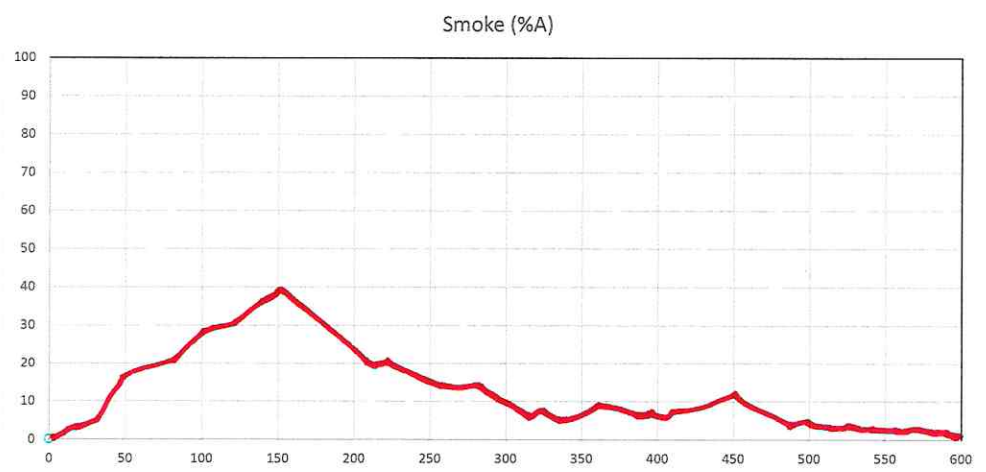
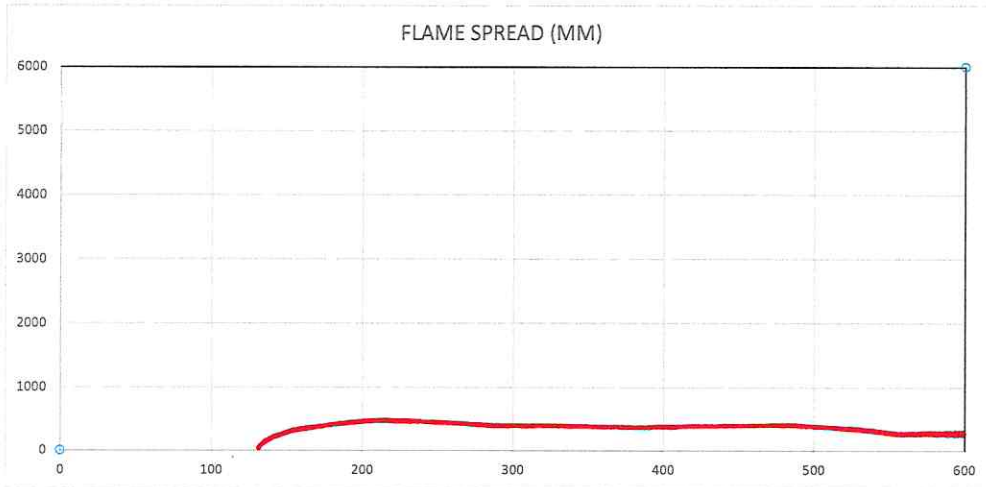
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Specimen ID: NON-VINYL TERRALON

Test No.: 61997-4

Standard: CAN/ULC S102



Time (sec)
600

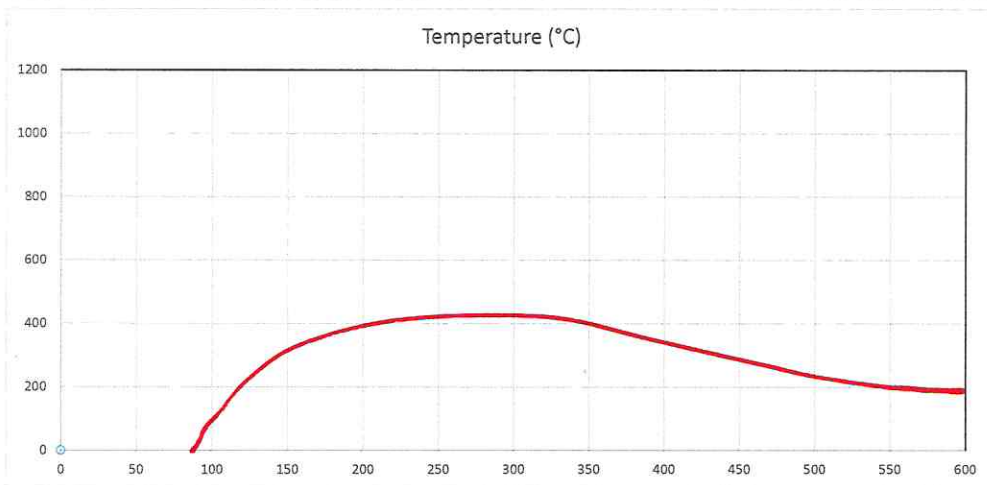
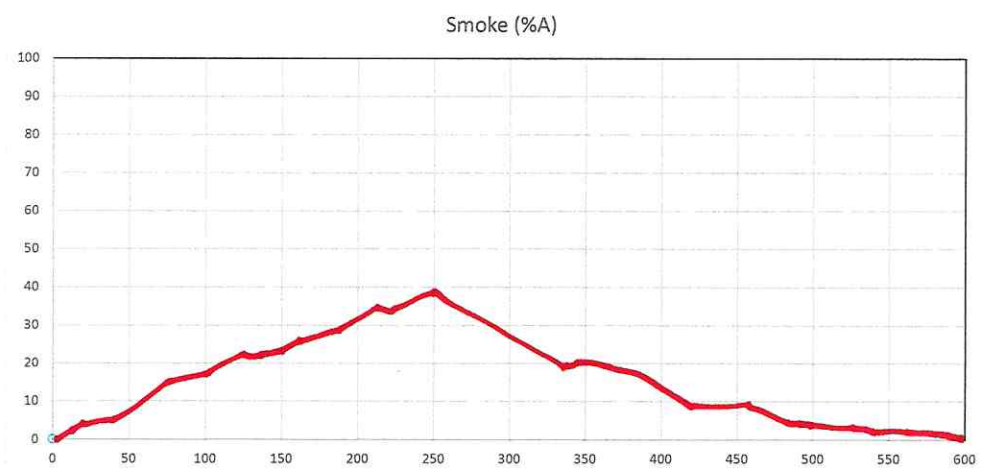
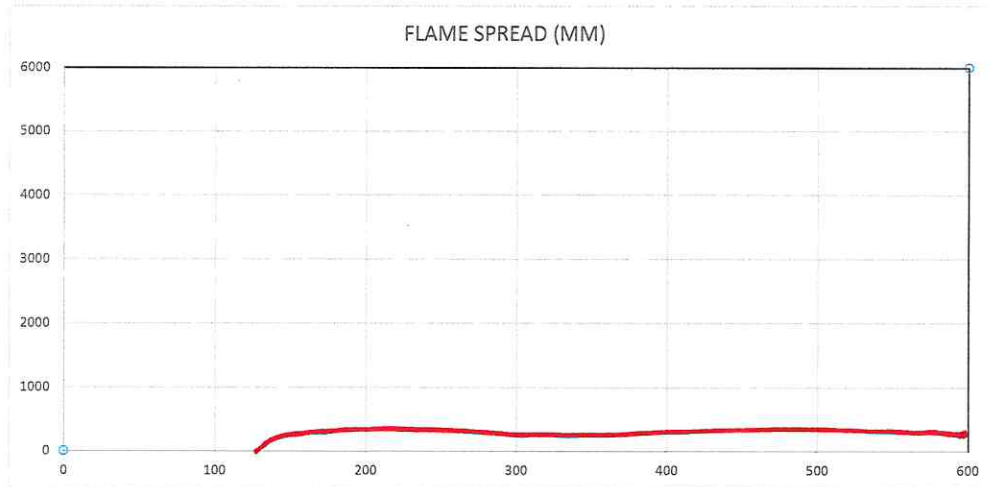
CAN/ULC S102 DATA SHEETS
RUN 3

Client: ROYSONS CORP

Specimen ID: NON-VINYL TERRALON

Test No.: 61997-4

Standard: CAN/ULC S102



Time (sec)
600