Summary of Investigation
For
Hueintek Inc
25-3 Hyundaikia-ro Paltan-myeon Hwaseong-si Gyeonggi-do 445-909 KOREA

Subject: Surface Burning Characteristics of "100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch"
Reference: TC10624 / 4786172933

February 7th, 2014

The following is a summary of the test results obtained on a thermoplastic material designated by Hueintek Inc as "100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch" under Project 4786172933. The tests were conducted at ULC's test facility in Toronto, Ontario on January 21st in general accordance with the Standard CAN/ULC-S102.2-10, *Standard Method of Test For Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies*, 7th Edition. (Exception, less than three tests were conducted).

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The sole purpose of this investigation was to provide fire test data for the thermoplastic material submitted and tested in general accordance with the requirements of CAN/ULC-S102.2-10. This data should not be considered representative of test results for other Plastic Materials in the absence of testing the thermoplastic material in accordance with CAN/ULC-S102.2-10.

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Sincerely,

Stanis Yu
Project Handler
Building Materials & Systems

Reviewed by:

G. Abbas Nanji
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## SAMPLE DESCRIPTION AND PREPARATION

The product was submitted in ready-to-test form and designated “100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch”. The product was a white, fibreboard with a density of 104 kg/m³. Six panels measuring 1221 mm long by 431 mm wide by 26 mm thick were butted end-to-end to create a 7326 mm long test sample. One test sample was prepared and conditioned to constant mass at a temperature of 23 ± 3°C and a relative humidity of 50 ± 5% prior to the test.

The test sample was laid on the floor of the tunnel furnace on top of an inorganic, ceramic fibre paper. A 350 mm long by 560 mm wide by 1.6 mm thick, uncoated, steel plate was placed on the sample mounting ledge at the fire end of the tunnel furnace “upstream” from the gas burners to complete the 7620 mm chamber length. An airtight water seal was maintained around the furnace lid during the test.

## TEST METHOD

The tests were conducted in general accordance with the Standard CAN/ULC-S102.2-10, *Standard Method of Test For Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies*, 7th Edition. (Exception, less than three tests were conducted).

This method defines the relative surface burning characteristics under specific test conditions. Although the procedure is applicable to materials, products and assemblies used in building construction for development of comparative surface spread of flame data, test results may not reflect the relative surface burning characteristics of tested materials under all building fire conditions. Test results relate only to the items tested.

## RESULTS

### *Observations*

Observations of the burning characteristics are provided in the table below. The sample began to melt when exposed to the pilot flame. A majority of the sample was completely consumed prior to the end of the test. No other significant observations were made.

| Test No. | Time of Ignition [min:s] | Maximum Flame Front Travel [m (ft)] | Time of Max. Flame Front Travel [min:s] | Maximum Smoke Obscuration [%] | Time of Max. Smoke Obscuration [min:s] |
|---|---|---|---|---|---|
| 1 | 1:15 | 5.9 (19.5) | 3:17 | 99.2 | 2:40 |

### *Surface Burning Characteristics*

A summary of test results is tabulated below. Graphical plots of flame spread and light transmission data are attached. The test results relate only to the actual samples tested.

| Test No. | Sample Description | Calculated Values | |
|---|---|---|---|
| | | Flame Spread Value (FSV) | Smoke Developed Value (SDV) |
| 1 | "100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch" | 107.4 | 224.4 |

Clause 9.4 of CAN/ULC-S102.2-10, stipulates that the Flame Spread Rating (FSR) and Smoke Developed Classification (SDC) of a product or assembly shall be determined from the results of not less than three identical test samples. Since only one test was conducted, the "100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch" does not warrant the assignment of a rating or classification.

**SURFACE BURNING CHARACTERISTICS**
**HUEINTEK INC**
**100% Polyester Core Acoustical Sound Board, Developmental test(ULC-S102), T-MAX 1 inch**