R E P O R T

SURFACE BURNING CHARACTERISTICS OF "QUALITY 1100 ON ACTION BAC" CARPET

A Report To: **Tappatec Inc.**
600 Orwell Street
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Attention: Mr. Brian Barrow

Submitted by: Fire & Flammability
Materials Validation

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QMI
ISO 9002
REGISTERED

ORTECH

ORTECH Corporation, 2395 Speakman Dr., Mississauga, Ontario, Canada L5K 1B3 Phone: (905) 822-4111 Fax: (905) 823-1446

ACCREDITATION Standards Council of Canada, Registration #1.

REGISTRATION ISO 9002-1994, registered by QMI, Registration #001109.

SPECIFICATIONS OF ORDER

Determine the Flame Spread and Smoke Developed Classifications based upon a single test conducted in conformance with CAN/ULC-S102.2, as per your P.O. # 21169.

SAMPLE IDENTIFICATION

The sample of carpet submitted for testing was identified as:
"Quality 1100 on Action Bac" manufactured by Egetaepper.
(ORTECH sample identification number 95-J52-S0225)

TEST PROCEDURE

The method, designated as CAN/ULC-S102.2-M88, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials", is designed to determine the relative surface burning characteristics of materials under specific test conditions. Results are expressed in terms of flame spread classification (FSC) and smoke developed (SD).

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

SAMPLE PREPARATION

The sample of carpet was bonded to glass reinforced cement board (GRC) using Roberts 3066 Action Carpet Adhesive. The carpet/GRC system, which consisted of three sections 2438 mm long and 440 mm wide, was conditioned to constant mass at a temperature of 23°C and a relative humidity of 50% prior to testing.

SUMMARY OF TEST PROCEDURE

The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised and the test sample is placed along the floor of the tunnel so as to form a continuous surface and then the lid is lowered.

SUMMARY OF TEST PROCEDURE (continued)

Upon ignition of the gas burners, the flame spread distance is observed and recorded every 15 seconds. Flame spread distance versus time is plotted ignoring any flame front recessions. If the area under the curve (A) is less than or equal to 29.7 m·min, FSC1 = 1.85·A; if greater, FSC1 = 1640/(59.4-A). Smoke developed is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, arbitrarily established as 0 and 100, respectively.

TEST RESULTS

SAMPLE	FSC1	SD
"Quality 1100 on Action Bac" manufactured by Egetaepper. applied onto GRC board	66	49

Observations of Burning Characteristics

- The sample began to ignite and propagate flame after approximately 2.25 minutes exposure to the test flame.
- The flame front propagated to a maximum distance of 6.0 metres (end point) at 4.75 minutes and remained there until approximately 9.0 minutes, at which point the sample of carpet was virtually consumed.
- The flame propagation was accompanied by an increase in smoke developed. Maximum amounts of smoke were recorded immediately after total flaming involvement of the carpet. Smoke production then began to decrease as the sample was consumed and burning activity subsided (see accompanying charts).

NOTE: - Approved for Canadian Ships.
(All Ships under jurisdiction of Canadian Coastguard)

- Approved for Elevator Cab Floors.

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Fire & Flammability,
Materials Validation.

R.J. Lederle
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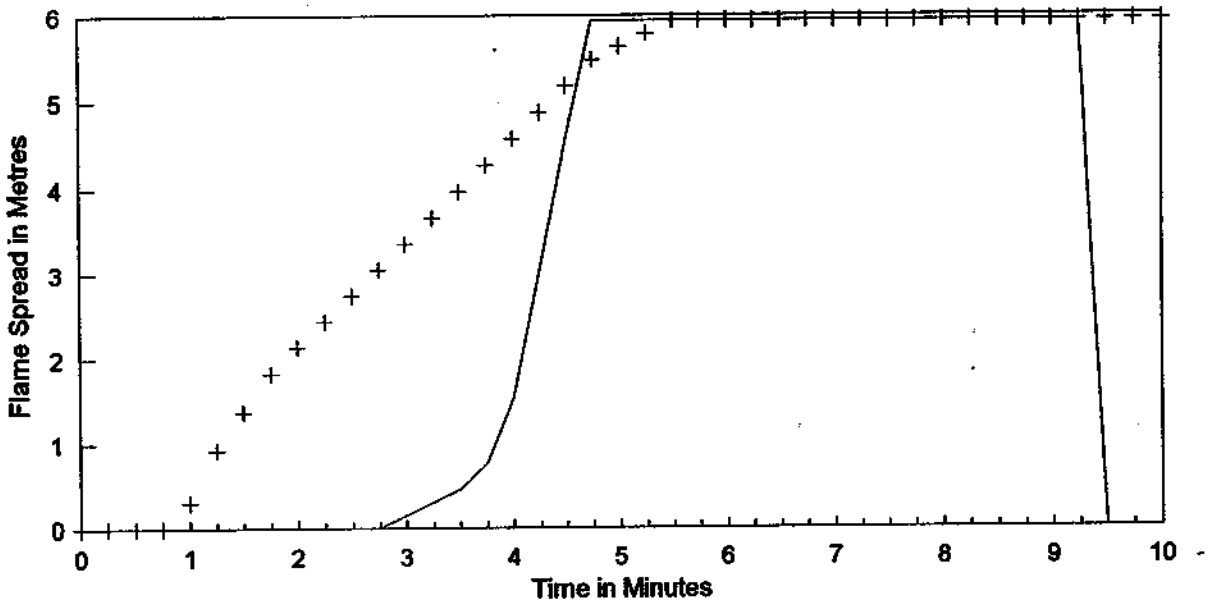
FLAME SPREAD CLASSIFICATION

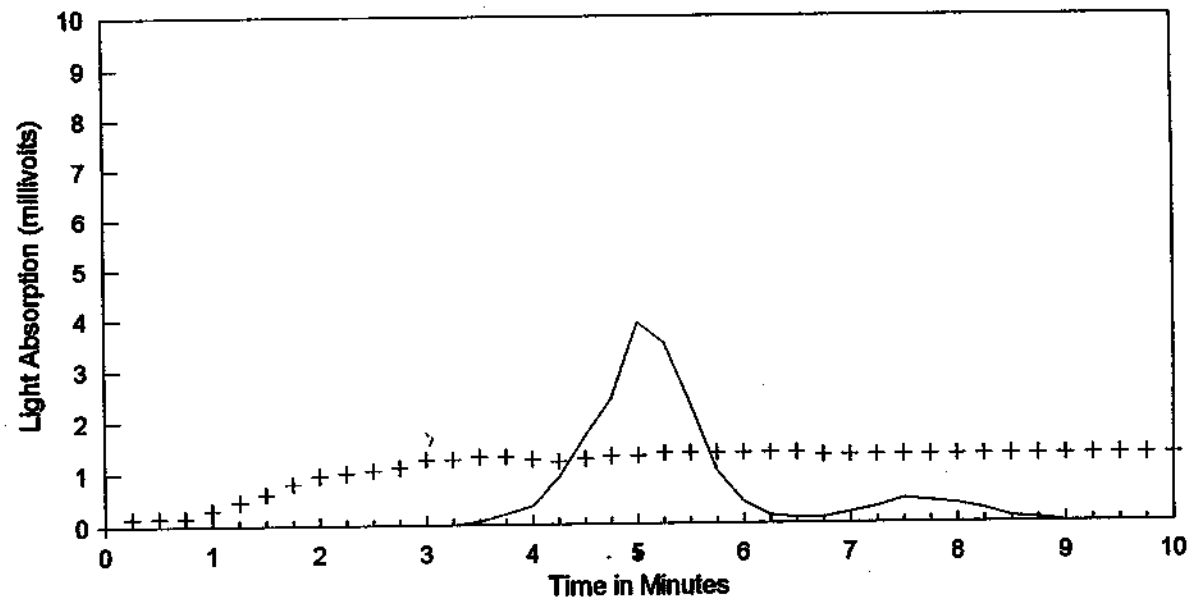
Quality 1100 on Action Bac



_____ SAMPLE +++ RED OAK (FSC = 100)

SMOKE DEVELOPED

Quality 1100 on Action Bac



_____ SAMPLE +++ RED OAK (SD = 100)

FSC1	SD
66	49