



**Underwriters
Laboratories Inc.**

Northbrook Division

May 19, 2006

Chatfield-Clarke Company
Mr. Ray Monday
14614 Valley Blvd
Fontana, CA 92335

Our Reference: SV16299 / 06CA23159

Subject: Report Of Surface Burning Characteristics Tests On Knight-Celotex
1/2 in. VersaKor® Fiberboard Covered With Vinyl

Dear Mr. Monday:

This is a Report summarizing the results of a test conducted under the Commercial Inspection and Testing Services (CITS) program identified as Assignment No. 06CA23159.

GENERAL:

The results relate only to item tested.

METHOD:

The test was conducted in accordance with Standard ANSI/UL723, ninth edition, dated August 29, 2003, "Test for Surface Burning Characteristics of Building Materials" (ASTM E84).

The test determines the Surface Burning Characteristics of the material, specifically the flame spread and smoke developed indices when exposed to fire.

The maximum distance the flame travels along the length of the sample from the end of the igniting flame is determined by observation. The Flame Spread Index of the material is derived by plotting the progression of the flame front on a time-distance basis, ignoring any flame front recession, and using the equations described below:

- A. $CFS = 0.515 A_T$ when A_T is less than or equal to 97.5 minute-foot.
- B. $CFS = 4900/(195-A_T)$ when A_T is greater than 97.5 minute-foot.

Where A_T = total area under the time distance curve expressed in minute-foot.

The Smoke Developed Index (SDI) is determined by rounding the Calculated Smoke Developed (CSD) as described in UL 723. The CSD is determined by the output of photoelectric equipment operating across the furnace flue pipe. A curve is developed by plotting the values of light absorption (decrease in cell output) against time. The CSD is derived by expressing the net area under the curve for the material tested as a percentage of the area under the curve for untreated red oak.

The CSD is expressed as:

$$\text{CSD} = (A_m/A_{ro}) \times 100$$

Where:

CSD = Calculated Smoke Developed
 A_m = The area under the curve for the test material.
 A_{ro} = The area under the curve for untreated red oak.

SAMPLES:

The sample utilized in this investigation were neither prepared nor selected by a Laboratories' representative such that no verification of composition can be provided.

The sample consisted of a vinyl covered fiberboard with the vinyl side exposed to the flame and designated as follows:

Sample Description

Test No.	System
1	Knight-Celotex 1/2in. VersaKor® with 15oz. Vinyl Facing

The test sample consisted of three 8 by 2 ft wide boards butted end-to-end to form the required 24 ft. long surface.

The test sample was supported by 2 in. hexagonal poultry netting supported by 1/4 in. diameter steel rods spaced 2 ft apart.

RESULTS:

The results are tabulated below are considered applicable only to the specific sample tested.

Data sheets and graphical plots of flame travel versus time and smoke developed versus time are also enclosed.

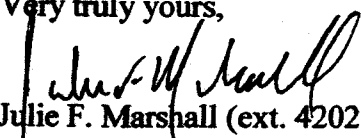
Table 1: Test Summary

Test No.	Test Code	Sample Description	CFS Calculated Flame Spread	FSI Flame Spread Index	CSD Calculated Smoke Developed	SDI Smoke Developed Index
1	05160619	Knight-Celotex 1/2in. VersaKor® with 15oz. Vinyl Facing	62.55	65	330.8	350

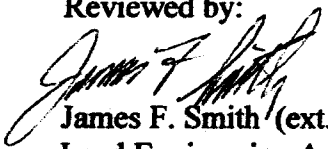
The Classification Marking of Underwriters Laboratories Inc. on the product is the only method provided by Underwriters Laboratories Inc. to identify products which have been produced under its Classification and Follow-Up Service. No use of a Classification Marking has been authorized as a result of this investigation.

Should you have any questions, please contact the undersigned.

Very truly yours,

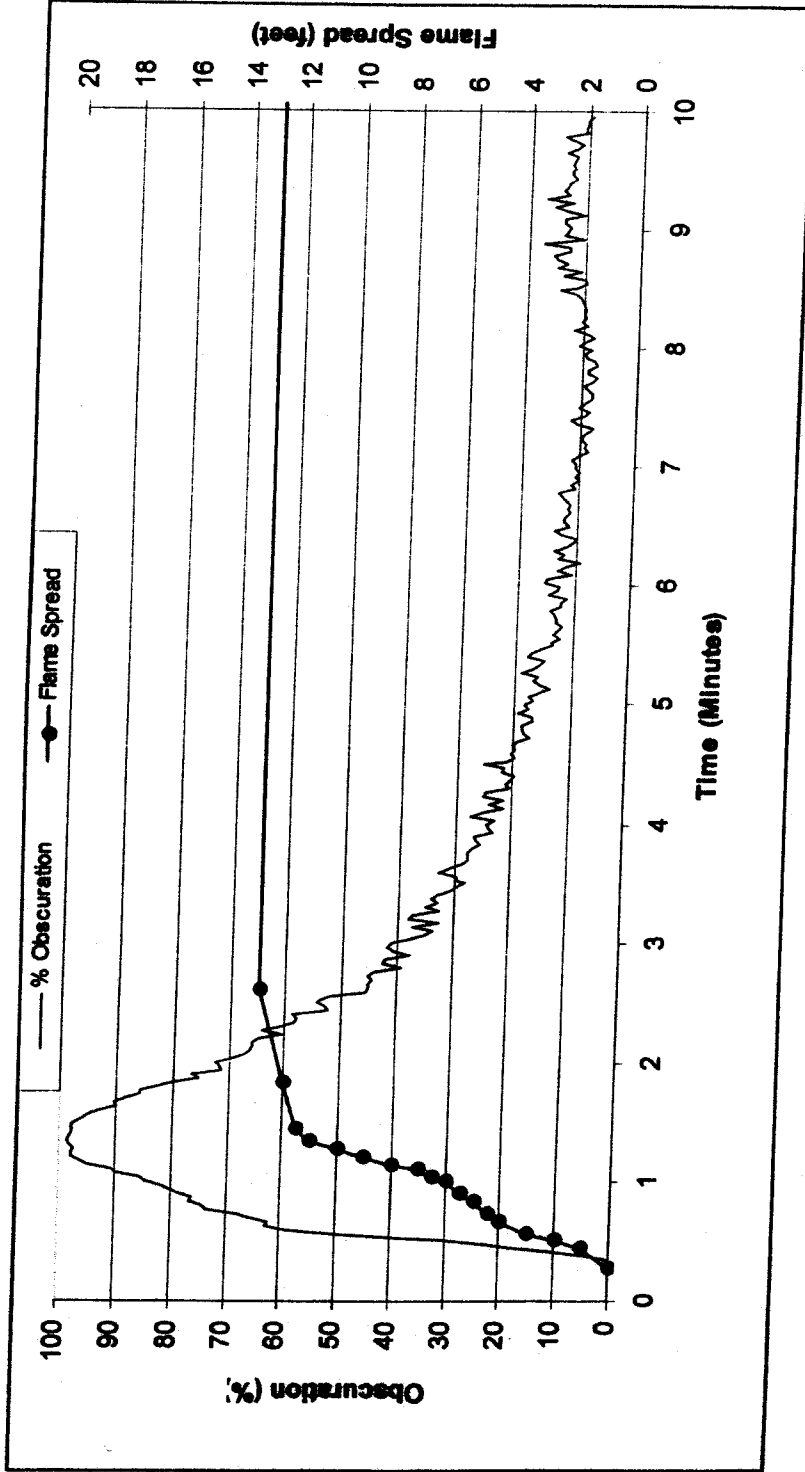

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Flame Spread / Smoke Results

Knight-Celotex
Knight-Celotex 1/2 in. VersaKor® with 15oz. Vinyl Facing



Test No. 1
06CA23159 / SV16299
05160619

Flame Spread Index: 65
Smoke Developed Index: 350
Max. Flame Spread: 13.0