

TEST REPORT

FOR

Fellert Acoustical Ceilings AB

Kyrkängsgatan 6
SE-503 38 Borås
SWEDEN

Standard Test Method for Surface Burning Characteristics of Building Materials ASTM E84 – 14

Test Report No: FH-2546

Assignment No: H-1116

Test Date: 11/26/2014

Report Date: 12/04/2014

Subject Material: Even Better Silk; Even Better Sahara; Even Better Secern; and Even Better Silk w/ Even Better Acoustical Coating

Prepared by:  _____

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Reviewed by:  _____

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TEST REPORT REVISION HISTORY:

DATE	SUMMARY
December 4, 2014	Original issue date. Original NGCTS report FH-2546.

INTRODUCTION:

This report presents the results of specimens tested in accordance with the requirements of ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials. This test method is also published under the designations ANSI/UL 723, NFPA 255, and UBC 8-1.

The purpose of this test method is to determine the relative behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed indices are reported. However, there is not necessarily a relationship between these two measurements.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled laboratory conditions. It should not alone be used for fire hazard or fire risk assessment of the materials, products, or assemblies under actual fire conditions.

TEST SAMPLES:

Test samples were submitted directly to NGC Testing Services (NGCTS) for testing by Fellert. The test samples were identified by the client as:

- **Even Better Silk (EB1 and EB2 plaster)**
- **Even Better Sahara (EB1 and EB2 plaster)**
 - **Even Better Secern (EB1 plaster)**
- **Even Better Silk w/ Even Better Acoustical Coating (EB1 and EB2 plaster)**

The test samples were received in good condition by NGCTS on November 10, 2014. Upon receipt of the test samples at NGCTS, they were placed in a conditioning room where they remained in an atmosphere of 73.4 ± 5°F and 50 ± 5% relative humidity until tested.

Each test sample type was submitted as six (6) nominally 2 ft. wide x 4 ft. long x 1 in. thick fiberglass acoustical ceiling panels. The face side only of each test sample type was finished with plaster of various surface textures (from smooth to rough). The “plaster side” of each panel was exposed to the burner flames during testing.

MOUNTING METHOD:

For each test, the (6) test sample panels were placed end-to-end, directly on the tunnel ledges, and butted tightly together to achieve the required 24 ft. length.

Non-combustible, fiber-reinforced cement board (1/4 in. thick) was placed over the specimen panels as lid protection.

TEST RESULTS:

The test results, computed on the basis of observed flame front advance and electronic smoke density measurements are presented in the table below.

The reported flame spread and smoke developed indices, as presented below, are the computed comparison to the standard calibration materials – mineral fiber-reinforced cement board and select grade red oak flooring. The cement board is used to establish relative 0 values for flame spread and smoke developed; red oak decks are used to establish relative 100 values for flame spread and smoke developed.

<u>TEST NO.</u>	<u>MATERIAL TESTED</u>	<u>SIDE EXPOSED</u>	<u>SUPPORT</u>	<u>CALCULATED FLAME SPREAD</u>	<u>CALCULATED SMOKE DEVELOPED</u>	
1	Even Better Silk (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0.00	1.08	
2	Even Better Sahara (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0.00	0.41	
3	Even Better Secern (EB1 Plaster)	Plaster	Self-Supporting	0.00	0.37	
4	Even Better Silk w/ Even Better Acoustical Coating (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0.00	0.16	
FLAME SPREAD AND SMOKE DEVELOPED INDEX						
	<u>MATERIAL TESTED</u>	<u>SIDE EXPOSED</u>	<u>SUPPORT</u>	<u>FLAME SPREAD INDEX *</u>	<u>SMOKE DEVELOPED INDEX*</u>	
	RED OAK FLOORING	FINISHED	SELF-SUPPORTING	100	100	
	REINFORCED CEMENT BOARD	SYMMETRICAL	SELF-SUPPORTING	0	0	
1	Even Better Silk (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0	0	
2	Even Better Sahara (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0	0	
3	Even Better Secern (EB1 Plaster)	Plaster	Self-Supporting	0	0	
4	Even Better Silk w/ Even Better Acoustical Coating (EB1 and EB2 Plaster)	Plaster	Self-Supporting	0	0	
				<u>CLASSIFICATION</u>	<u>FSI</u>	<u>SDI</u>
* Flame Spread / Smoke Developed Index is the result (or the average of the results of multiple tests), rounded to the nearest multiple of 5. Smoke developed results in excess of 200 are rounded to the nearest multiple of 50.				CLASS A or I	0 - 25	0 - 450
				CLASS B or II	26 - 75	0 - 450
				CLASS C or III	76 - 200	0 - 450

ADC DRAFT (IN. H2O) 0.080
 GAS PRESS. (IN. H2O) 0.295
 GAS VOL (CF) 50.53
 BTU/cf 1001
 SHUTTER (IN.) 3.00
 TEMP. 13' BURIED 108 F

Flame Spread: 0.00
 Area under Flame Curve (ft-min): 0.00

TEST#: PH-2546-1 DATE: 11/26/2014

TEST METHOD: ASTM E84-14

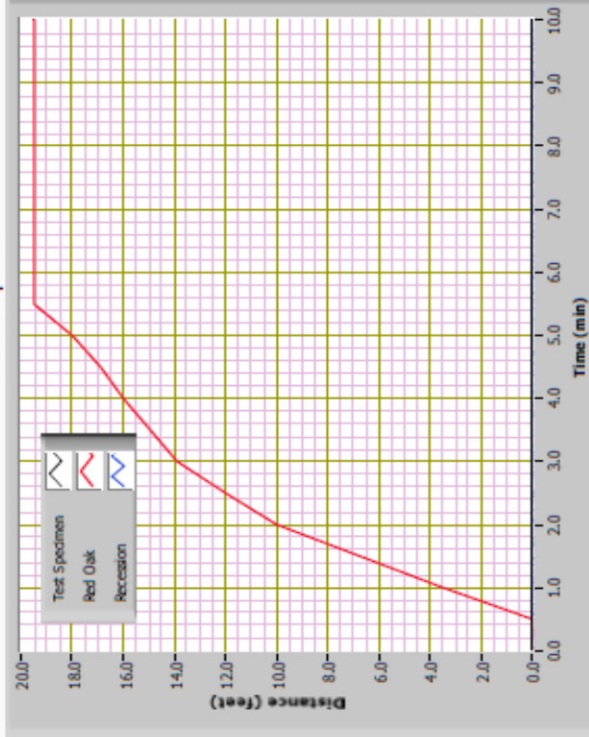
CLIENT: Fellert Acoustical Ceilings AB
 PROJECT#: H-1116

SAMPLE: Even Better Silk (EB1 and EB2
 plaster)

MATERIAL: (6) 24" x 48" Panels
 SUPPORT: Self-supporting
 REMARKS: Ignition Time: 0:00
 Max Flame Front: 0.00 FT. @ 0:00
 Exposed surface over burners blackened and
 cracked, but no ignition was observed.

Smoke Developed: 1.08
 Area under Smoke Curve (%A-min): 0.55

Flame Spread



Smoke Developed



ADC DRAFT (IN. H2O) 0.080
 GAS PRESS. (IN. H2O) 0.293
 GAS VOL (CF) 50.64
 BTU/cf 995
 SHUTTER (IN.) 3.00
 TEMP. 13' BURIED 110 F

Flame Spread: 0.00
 Area under Flame Curve (ft-min): 0.00

TEST#: PH-2546-2 DATE: 11/26/2014

TEST METHOD: ASTM E84-14

CLIENT: Fellert Acoustical Ceilings AB
 PROJECT#: H-1116

SAMPLE: Even Better Sahara (EB1 and
 EB2 plaster)

MATERIAL: (6) 24" x 48" Panels

SUPPORT: Self-Supporting

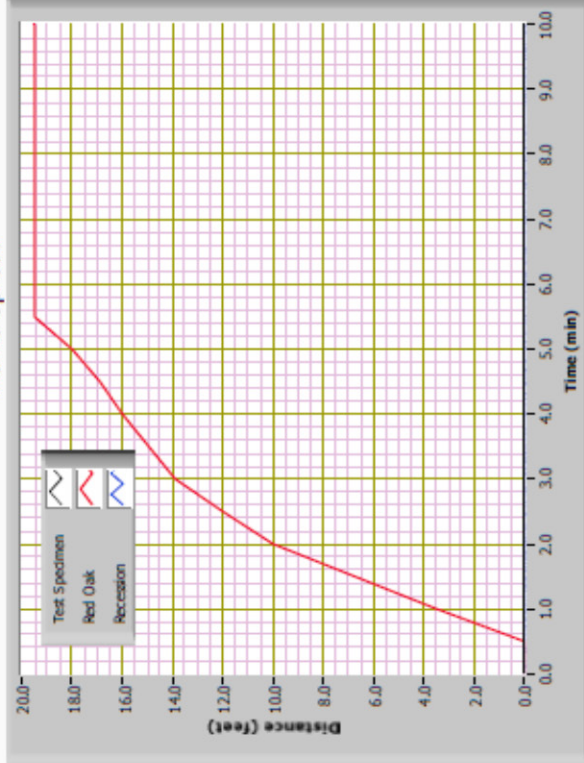
REMARKS: Ignition Time: 0:00

Max Flame Front: 0.00 FT. @ 0:00

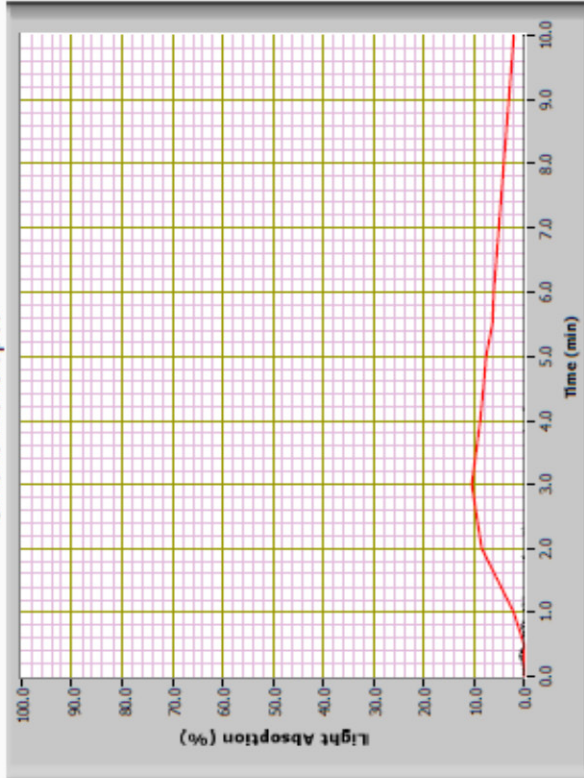
Exposed surface over burners blackened and
 cracked, but no ignition was observed.

Smoke Developed: 0.41
 Area under Smoke Curve (%A-min): 0.21

Flame Spread



Smoke Developed



ADC DRAFT (IN. H2O) 0.080
 GAS PRESS. (IN. H2O) 0.285
 GAS VOL (CF) 49.56
 BTU/CI 1002
 SHUTTER (IN.) 3.00
 TEMP. 13' BURIED 110 F

Flame Spread: 0.00
 Area under Flame Curve (ft-min): 0.00

TEST#: FH-2546-3 DATE: 11/26/2014

TEST METHOD: ASTM E84-14

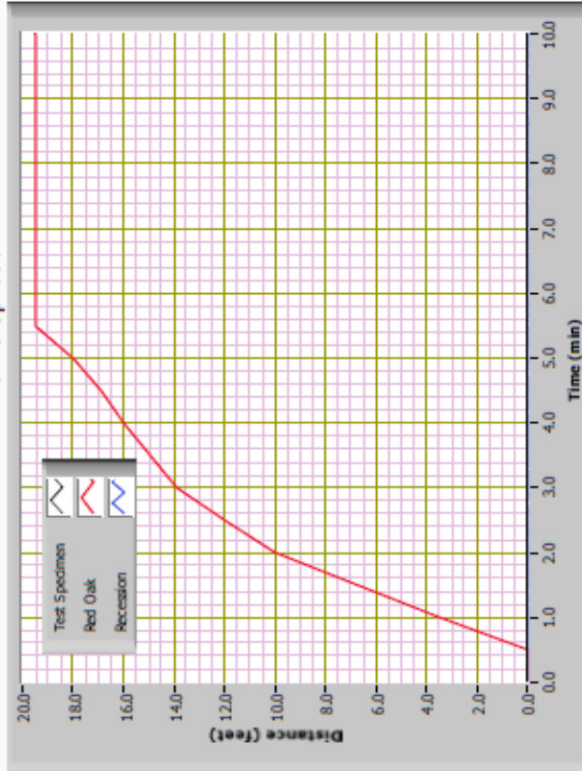
CLIENT: Fellert Acoustical Ceilings AB
 PROJECT#: H-1116

SAMPLE: Even Better Secern (EB1
 plaster)

MATERIAL: (6) 24" x 48" Panels
 SUPPORT: Self-Supporting
 REMARKS: Ignition Time: 0:00
 Max Flame Front: 0.00 FT. @ 0:00
 Exposed surface over burners blackened and
 cracked, but no ignition was observed.

Smoke Developed: 0.37
 Area under Smoke Curve (%A-min): 0.19

Flame Spread



1650 MILITARY ROAD, BUFFALO, 14127

TEL: 716-873-9750

Smoke Developed



FAX: 716-873-9753

EMAIL: NGCTEST@NGCTESTINGSERVICES.COM

ADC DRAFT (IN. H2O) 0.080
 GAS PRESS. (IN. H2O) 0.287
 GAS VOL (CF) 49.45
 BTU/cf 1010
 SHUTTER (IN.) 3.00
 TEMP. 13' BURIED 110 F

Flame Spread: 0.00
 Area under Flame Curve (ft-min): 0.00

TEST#: PH-2546-4 DATE: 11/26/2014

TEST METHOD: ASTM E84-14

CLIENT: Fellert Acoustical Ceilings AB
 PROJECT#: H-1116

SAMPLE: Even Better Silk w/ Even
 Better Acoustical Coating (EB1
 and EB2 plaster)

MATERIAL: (6) 24" X 48" Panels

SUPPORT: Self-Supporting

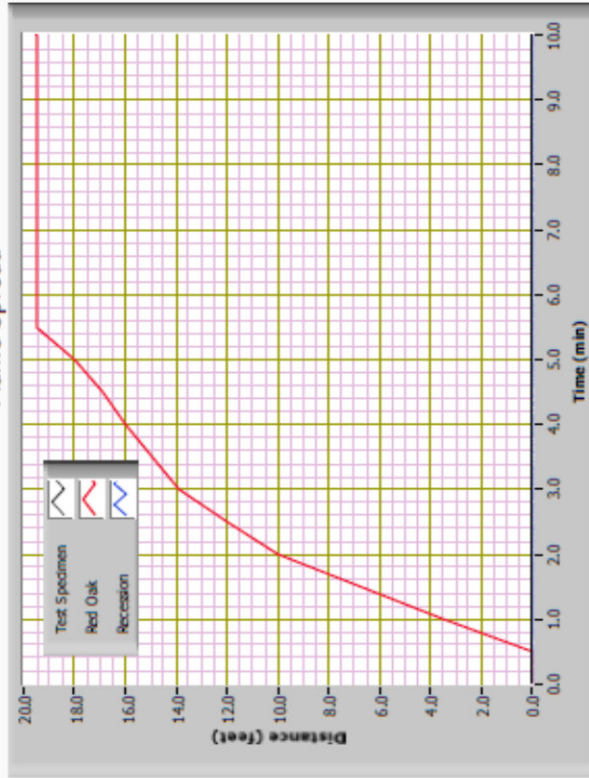
REMARKS: Ignition Time: 0:00

Max Flame Front: 0.00 FT. @ 0:00

Exposed surface over burners blackened and
 cracked, but no ignition was observed.

Smoke Developed: 0.16
 Area under Smoke Curve (%A-min): 0.08

Flame Spread



Smoke Developed

