

<b>Received:</b> 01/16/2020	<b>Completed:</b> 01/17/2020	<b>Letter:</b> W	JR	<b>P.O.#:</b>	<b>Test Report #:</b> 3-36659-0-
-----------------------------	------------------------------	------------------	----	---------------	----------------------------------

<b>Client's Identification</b>	Cover Material: Relate.100% Trevira CS.
--------------------------------	---

<b>Tested For: Lone Henriksen</b> Kvadrat A/S Lundbergsvej 10 8400 Ebeltoft Denmark	<b>Key Test: CA TB 117-2013 (Section I-Cover Fabric)</b> <b>Tel: 011 45 89 53 18 66</b> <b>Fax: 011 45 89 53 18 00</b>	<b>275</b> <b>Ext:</b>
--	--	---------------------------

CA TB 117 LE: 2013; V 1/19 PC: 24 hrs: 21°± 3°C; less than 55% RH SM/mg  
 NTR 04/16

TEST PERFORMED: California Technical Bulletin 117-2013 - Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture (June 2013 Version)

Section 1, Cover Fabric Test (Upholstery cover material is the outermost layer of fabric or related material used to enclose the main support system or upholstery materials, or both, used in the furniture item.)

REFERENCE: ASTM E1353-08ae1

IGNITION SOURCE: Cigarette

SPECIMEN TEST COMPOSITE:

Upholstery Cover Material: As described in "Client's Identification".

Standard Substrate Material: Non FR polyurethane foam, density 1.8 ± 0.05 lb/ft<sup>3</sup>

BRIEF DESCRIPTION OF TEST: Miniature cushions are prepared using the client's cover fabric over the standard filling material. The vertical or back cushions measure 8" x 8" x 2". The horizontal or seat cushions measure 8" x 5" x 2".

A lighted cigarette is placed in the crevice formed by the vertical cushion and the horizontal cushion.

The test is terminated at 45 minutes if smoldering is no longer observed.

Test measurements and observations are recorded.

-- See Page 3 for "Results" and "Conclusion" --

<b>Received:</b> 01/16/2020	<b>Completed:</b> 01/17/2020	<b>Letter:</b> W	JR	<b>P.O.#:</b>	<b>Test Report #:</b> 3-36659-0-
<b>Client's Identification</b>	Cover Material: Relate.100% Trevira CS.				
<b>Tested For:</b> Lone Henriksen Kvadrat A/S Lundbergsvej 10 8400 Ebeltoft Denmark	<b>Key Test:</b> CA TB 117-2013 (Section I-Cover Fabric)				275
	<b>Tel:</b> 011 45 89 53 18 66		<b>Ext:</b>		
	<b>Fax:</b> 011 45 89 53 18 00				

PASS/FAIL/REPEAT CRITERIA: A material is considered to pass or fail based on the following criteria:

1. A single mock-up test specimen fails to meet the requirements of this test procedure if any of the following criteria occurs:
  - a) The mock-up test specimen continues to smolder after the 45 minute test duration;
  - b) A vertical char length (measured as specified in step 11.9 of ASTM E1353-08ae1) of more than 1.8 inches (45 mm) develops on the cover fabric.
  - c) The mock-up test specimen transitions to open flaming.
2. The cover fabric passes the test if three initial mock-up specimens pass the test, i.e., the cigarettes burn their entire length and the mock-ups are no longer smoldering.
3. If more than one initial specimen fails, the cover fabric fails the test.
4. If any one of the three initial specimens fails, repeat the test on additional three specimens.
5. If all three additional specimens pass the test, the cover fabric passes the test. If any one of the additional three specimens fails, the cover fabric fails the test.

DISCUSSION: The current version of California Technical Bulletin 117-2013 has no provision to recognize cigarettes that self-extinguish prior to burning their entire length. However, ASTM E 1353 does recognize this phenomenon.

The SGS report evaluates replacement cigarettes as follows:

If a cigarette self extinguishes (SE) before burning its entire length, a new cigarette is placed into the test. If the new (replacement) cigarette self-extinguishes or burns its entire length, the result for that specimen will then be evaluated as if the cigarette burned its entire length when assigning the "Passing/Failure" conclusion.

**Received:**01/16/2020 **Completed:**01/17/2020 **Letter:** W **JR** **P.O.#:** **Test Report #:** 3-36659-0-

**Client's Identification** | Cover Material: Relate.100% Trevira CS.

**Tested For: Lone Henriksen** **Key Test: CA TB 117-2013 (Section 1-Cover 275**  
 Kvadrat A/S **Fabric)**  
 Lundbergsvej 10 **Tel: 011 45 89 53 18 66 Ext:**  
 8400 Ebeltoft Denmark **Fax: 011 45 89 53 18 00**

RESULTS:

	Specimen #	Char Length (inches)	SE (yes/no)	SB45 (yes/no)	TOF (yes/no)
Initial:	1	0.8	No	No	No
	2	0.7	No	No	No
	3	0.8	No	No	No
Replacement: (If needed)	1				
	2				
	3				
Repeat Tests: (If needed)	1				
	2				
	3				

EXPLANATION:

**Initial:** These are the first 3 cigarettes where the results could be sufficient to draw a test conclusion.

**Replacement:** If any of the initial cigarettes self-extinguish before burning their complete length, a new test is conducted with a fresh cigarette.

**Repeat Test:** Depending on the initial or replacement results, repeat tests might be required to draw a conclusion.

CODES USED:

SE = Cigarette self-extinguished; See "Discussion" on Page 2  
 SB45 = Smolder beyond 45 minutes  
 TOF = Transitions to open flaming  
 MNR = Measurement not recorded as smoldering exceeded 45 minutes or specimen transitioned to open flames  
 EC = Escalating smoldering combustion: Extinguished by technician at:  
 (mm:ss) \_\_\_\_\_ : \_\_\_\_\_ due to unsafe conditions.

CONCLUSION:

The above results reported for the initial and / or replacement cigarettes are sufficient to indicate:

Passing;  Failure;  Repeat test on 3 additional specimens

The results after conducting the repeat tests indicate:

Passing;  Failure

<b>Received:</b> 01/16/2020	<b>Completed:</b> 01/17/2020	<b>Letter:</b> W	JR	<b>P.O.#:</b>	<b>Test Report #:</b> 3-36659-0-
<b>Client's Identification</b>	Cover Material: Relate.100% Trevira CS.				
<b>Tested For:</b> <b>Lone Henriksen</b> Kvadrat A/S Lundbergsvej 10 8400 Ebeltoft Denmark	<b>Key Test:</b> CA TB 117-2013 (Section 1-Cover Fabric)				275
	<b>Tel:</b> 011 45 89 53 18 66		<b>Ext:</b>		
	<b>Fax:</b> 011 45 89 53 18 00				

REMARKS: None.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

-----  
 AUTHORIZED SIGNATURE  
 SGS  
 /jab /pm

Phyllis Pettit

JAN 24 2020

(Page 4 of 4)