



REPORT NUMBER: 102123550COQ-001
ORIGINAL ISSUE DATE: December 16, 2015

EVALUATION CENTER
Intertek Testing Services NA Ltd.
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RENDERED TO

PRODUCT EVALUATED: Polyester fabric
EVALUATION PROPERTY: Flame Resistance

Report of testing Polyester fabric for compliance with the applicable requirements of the following criteria: CAN/ULC S109-14, Standard for Flame Tests of Flame-Resistant Fabrics and Films.

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TEST REPORT

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2 Introduction

Intertek Testing Services NA Ltd. (Intertek) has conducted testing on Polyester fabric, to determine whether the submitted samples would meet the small flame requirements of CAN/ULC S109-14, *Standard for Flame Tests of Flame-Resistant Fabrics and Films*. This evaluation began December 15, 2015 and was completed the same day.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client and were not independently selected for testing. Samples were received at the Evaluation Center on December 10, 2015.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

3.2.1. Material Specifications

➤ *Material Description*

The samples consisted of a polyester fabric material. The material was identified by the client as Artificial Foliage for artificial trees for commercial application with inherent fire retardant.

➤ *Small Flame Test*

A total of ten samples were submitted, each measuring 250mm in length and 90mm in width. The samples were in the direction of the weft and warp.

3.2.2. Sample Conditioning

All the test samples were subjected to the Water Leaching in section 7.4, prior to being dried in an oven for at least 30 minutes at 105°C.

3.2.3. Sample Mounting

➤ *Small Flame Tests*

The test samples were placed in the specimen holder, with clamps along each edge of the sample, leaving the ends free and exposing a surface area 50mm wide by 250mm long. The holder was then placed in the test apparatus.

Ten trial runs were conducted for the small flame samples.

4 Testing and Evaluation Methods

4.1. SMALL FLAME TEST

Once the specimen holder was in place, it was held 20mm above the centre of the opening of a Bunsen burner. The burner was supported in such a way that it was 25° from the vertical. The burner supplied a flame 40mm long, with the intake air supply shut off. The flame impinged the sample for a period of 12 seconds.

4.2. ACCEPTANCE CRITERIA

A sample will meet the requirements of CAN/ULC S109 if the following criteria are met:

➤ *Small Flame Samples*

- Portions or residues from the test specimen which break or drip from the sample during the test shall not continue to burn for more than two seconds on the floor of the test apparatus.
- The vertical spread of flame and smouldering combustion shall not exceed 190mm on any one specimen and shall not exceed 165mm on an average of ten specimens.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

5.1.1. Small Flame Test Results

Sample No.	Fabric Direction	After Burn (sec.)	Damaged Length (mm)	Flaming Drip (Y/N)	Floor Burn (sec.)
1	Weft	0	126	No	0
2	Weft	14	140	No	0
3	Weft	11	148	No	0
4	Weft	21	188	No	0
5	Weft	8	123	No	0
6	Warp	0	87	No	0
7	Warp	0	72	No	0
8	Warp	0	58	No	0
9	Warp	0	63	No	0
10	Warp	0	78	No	0
Average Damage Length:			108mm		

5.1.2. Additional Flaming

No portions of or residues from the test specimens fell and burned on the floor of the test apparatus.

Conclusion

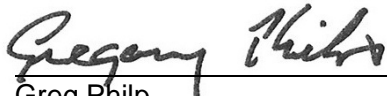
The samples of Polyester Fabric for use in artificial foliage for artificial trees for commercial application, with inherent fire retardant therefore met the requirements of CAN/ULC-S109-14, *Standard for Flame Tests of Flame-Resistant Fabrics and Films*, small flame.

Sample	Maximum Spread of Flame	Average Spread of Flame	Floor Burn > 2 seconds
Polyester Fabric	188	108mm	No

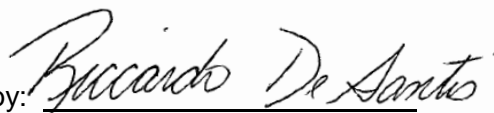
The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK TESTING SERVICES NA LTD.

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REVISION SUMMARY

DATE	PAGE(S)	SUMMARY
December 16, 2015	All	Original Issue Date