

# CERTIFICATE

## Material Fire Test Certificate

**IGNL-9238-05-01C I01 R00**

**DATE OF TEST** 08.04.2025  
**ISSUE DATE** 19.05.2025  
**EXPIRY DATE** 18.05.2030

AS ISO 9239.1-2003 Determination of the burning behaviour using a radiant heat source

**SPONSOR**

**Belgotex NZ**  
 25 Leslie Hills Drive  
 Riccarton Christchurch 8011  
 New Zealand

**TEST BODY**

**Ignis Labs Pty Ltd**  
 ABN 36 620 256 617  
 3 Cooper Place  
 Queanbeyan NSW 2620  
 Australia  
 www.ignislabs.com.au  
 (02) 6111 2909  
 Test body is the test location



NATA Accredited Laboratory  
 Number: 20534 Site number: 24604  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

**Specimen Name**

Key West

**Specimen Description**

The sponsor described the specimen as tufted cut pile carpet. It is composed of 100% solution dyed nylon and has a nominal mass per unit area of 1080 g/m<sup>2</sup>. The specimen was received as a roll of carpet with a dark grey pile and a woven light grey base. The carpet had an average measured pile thickness of 8.95 mm, an average measured base thickness of 1.95 mm, and an average measured total thickness of 10.87 mm. The specimen was conventionally tested on Dunlop Government Red underlay. The underlay was multicoloured with a red laminate and had an average measured thickness of 7.62 mm. The specimens had an average measured total thickness of 18.63 mm. Specimens were fabricated to the test dimensions by Ignis Labs. Ignis Labs was not responsible for the sampling stage. The specimen was sampled by the test sponsor. The test result applies to the specimen as received.

**Test Method**

Four (4) specimens were tested in accordance with Australia Standard 9239.1-2003 Reaction to fire tests for floorings, Part 1: Determination of the burning behaviour using a radiant heat source carried out in accordance with EN ISO 9239-1. Specimens 1 to 3 were tested with production direction while specimen 4 was tested against the production direction. After testing one specimen with the product direction and one specimen against the product direction, the specimen with the product direction demonstrated a worse result and as such two more specimens were tested in that direction.

**Observations**

The tested specimens exhibited equivalent results. Melting was observed prior to ignition, and the specimens ignited at 128, 125, 124, and 126 seconds into the test for specimens 1 to 4 respectively. Melting was observed ahead of the main flame front and flameout occurred at 1695, 1532, 1675, and 1165 seconds into the test. After the test, the specimens were partially melted and charred black were flaming had occurred.

**Calculations**

Parameters	Unit	Specimen			
		With Product Direction	2	3	Against Product Direction
Specimen number		1	2	3	4
Test duration	min	30.00	30.00	30.00	30.00
Time to reach 50mm	s	192	199	215	226
Flameout time	min	28.25	25.53	27.92	19.42
Flame spread at 10 min	mm	330	280	310	290
Flame spread at 20 min	mm	400	365	385	370
Flame spread at 30 min	mm	430	370	390	370
Flame spread at flameout	mm	430	370	390	370
Maximum light attenuation	%	49.46	40.22	44.82	46.25
HF-10	kW/m <sup>2</sup>	6.80	7.84	7.23	7.64
HF-20	kW/m <sup>2</sup>	5.28	6.04	5.61	5.93
HF-30	kW/m <sup>2</sup>	4.73	5.93	5.50	5.93
CHF	kW/m <sup>2</sup>	4.73	5.93	5.50	5.93
Critical heat flux	kW/m <sup>2</sup>	4.8	6.0	5.4	6.0
Smoke obscuration integration	%xmin	199.66	142.64	159.74	167.73

Parameters	Unit	Results
Average flame spread	mm	396.67
Average critical heat flux	kW/m <sup>2</sup>	5.4
Average smoke obscuration integration	%xmin	167.35



**Test Supervisor**  
 Darren Laker



**Technical Lead**  
 Jessica Ying

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Disclaimer These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test, and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use. The results of these fire tests may be used to directly assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all fire conditions.

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