

CERTIFICATE

Material Fire Test Certificate

IGNL-6047-05-03C I01 R00

DATE OF TEST 28.04.2022
 ISSUE DATE 13.05.2022
 EXPIRY DATE 12.05.2027

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

SPONSOR

Quest Carpets
 43-55 Mark Anthony Drive
 Dandenong South, VIC 3175

TEST BODY

Ignis Labs Pty Ltd
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 Australia
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Test body is the test location



Specimen Identification

Crossley SDN Action Bac

Specimen Description

The sponsor described the specimen as 48 oz Solution Dyed Nylon twist pile carpet. It is composed of 100% solution dyed nylon. It is of twist pile construction with a pile height in the order of 13 mm and a carpet width of 3.66 m. Its primary backing is composed of woven synthetic, and its secondary backing is composed of action bac. It has a nominal density of 1632 g/m². It is to be tested conventionally on Dunlop Government Red underlay. The test specimens had a total nominal thickness of 20.42 mm.

The specimens were fabricated by Ignis labs from a single roll of material provided by the sponsor. Ignis Labs was not responsible for the sampling stage. All specimens were sampled by the test sponsor. The test results apply to the specimens as received.

Test Method

Four 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. Specimen 1 was tested along the production direction and specimens 2-4 were tested against the production direction. As requested by the test sponsor, the specimens were tested for 30 minutes only.

Observations

Comparing the critical heat flux values of specimens tested in two directions, the specimen against the production direction demonstrated a worse result and as such an additional two tests were completed in that direction. Specimens 1, 2, and 4 reached flameout within the 30-minute test duration. Specimen 3 was extinguished by operator at 30 minutes. Sustained flaming of specimens was observed starting from 150, 272, 228, and 329 seconds for specimens 1 to 4 respectively. Flashing and charring of the surface was observed prior to the ignition. Charring and melting were observed on the carpet surface.

Calculations

Parameters	Unit	Specimen			
		With Product Direction	Against Product Direction		
		1	2	3	4
Specimen number					
Test duration	min	30.00	30.00	30.00	30.00
Time to reach 50mm	s	250	363	333	412
Flameout time	min	-	-	-	-
Flame spread at 10 min	mm	300	280	320	210
Flame spread at 20 min	mm	320	350	500	360
Flame spread at 30 min	mm	320	350	550	370
Flame spread at flameout	mm	320	350	550	370
Maximum light attenuation	%	40.44	60.20	64.57	56.91
HF-10	kW/m ²	7.51	7.90	7.10	9.27
HF-20	kW/m ²	7.10	6.44	3.80	6.22
HF-30	kW/m ²	7.10	6.44	3.24	6.00
CHF	kW/m ²	7.10	6.44	-	6.00
Critical heat flux	kW/m ²	7.1	6.4	3.2	6.0
Smoke obscuration integration	%×min	152.61	212.54	372.07	263.78

Result

Parameters	Unit	Results
Average flame spread	mm	423.33
Average critical heat flux	kW/m ²	5.2
Average smoke obscuration integration	%×min	282.8

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Version: IGNL-QF-031-Issue 03 Revision 01

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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