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
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

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		
Specimen number		1	2	3	4
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/m²	7.51	7.90	7.10	9.27
HF-20	kW/m²	7.10	6.44	3.80	6.22
HF-30	kW/m²	7.10	6.44	3.24	6.00
CHF	kW/m²	7.10	6.44	-	6.00
Critical heat flux	kW/m²	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/m²	5.2
Average smoke obscuration integration	%×min	282.8

Test Supervisor
Darren Laker

Technical Lead
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