CERTIFICATE

Material Fire Test Certificate

IGNL-6047-05-01C I01 R00

DATE OF TEST	21.04.2022
ISSUE DATE	06.05.2022
EXPIRY DATE	05.05.2027

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

Pacific SDN Action Bac

Specimen Description

The sponsor described the specimen as 32oz Solution Dyed Nylon twist pile carpet. It is composed of 100% solution dyed nylon. It is of twist pile construction with a pile height of 11 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 is to be tested conventionally on Dunlop Government Red underlay.
The received specimens were a mottled pale brown coloured twist pile carpet attached to a beige weaved backing on a multicoloured underlay. The carpet had a measured nominal thickness of 11.15 mm, and the underlay had a measured nominal thickness of 6.83 mm. The test specimens had a total nominal thickness of 17.98 mm.
Ignis Labs was not responsible for the sampling stage. All specimens were sampled and fabricated by the test sponsor. The test results apply to the specimens as received.

Test Method

Four specimens were tested in accordance with Australia Standard AS 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. Two of the three specimens against the production direction exhibited equivalent performance, while specimen 4 had a significantly lower flame spread. None of the specimens reached flameout within the 30-minute test duration. Sustained flaming of specimens was observed starting from 170, 211, 219, and 246 seconds for specimens 1 to 4 respectively. Flashing was observed prior to ignition. 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	202	247	254	302
Flameout time	min	-	-	-	-
Flame spread at 10 min	mm	410	400	410	190
Flame spread at 20 min	mm	490	490	520	260
Flame spread at 30 min	mm	560	570	610	260
Flame spread at flameout	mm	560	570	610	310
Maximum light attenuation	%	70.78	75.96	65.44	26.91
HF-10	kW/m²	5.12	5.34	5.12	9.65
HF-20	kW/m²	3.95	3.95	3.55	8.29
HF-30	kW/m²	3.14	3.03	2.62	8.29
CHF	kW/m²	-	-	-	-
Critical heat flux	kW/m²	3.2	3.0	2.6	8.2
Smoke obscuration integration	%×min	401.42	277.43	279.59	50.54

Result

Parameters	Unit	Results
Average flame spread	mm	496.67
Average critical heat flux	kW/m²	4.6
Average smoke obscuration integration	%×min	202.52

Test Supervisor
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Technical Lead
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