

CERTIFICATE

Material Fire Test Certificate

IGNL-8066-05C I01 R00

DATE RECEIVED 14/02/2024
 DATE OF TEST 08/03/2024
 ISSUE DATE 22/03/2024
 EXPIRY DATE 21/03/2029

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 Name

Pacific Action Bac

Specimen Description

The sponsor described the specimen as a Pacific Action Bac twist pile carpet. The pile is composed of solution-dyed nylon. It has a nominal thickness of 11 mm and a nominal width of 3.66 m. The nominal weight of the pile per unit mass is 1088 g/m². It is made up of a woven synthetic primary backing and an Action Bac secondary backing. It is intended for residential and commercial use. The carpet is to be conventionally tested on Airstep Steplight Red. The received specimens were initially in the form of carpet and underlay rolls, which were subsequently fabricated into test samples by Ignis Labs. The carpet was light grey in colour and featured a woven base. It had a base thickness of 1.23 mm, a pile thickness of 8.05 mm, and carpet thickness of 10.19 mm. The underlay was multicoloured with a white laminate and was labelled as 'Airstep Steplight.' Its thickness was precisely measured at 7.01 mm. 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 (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. Specimens 1 was tested with production direction while specimen 4 to 6 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. All specimens against the product direction exhibited equivalent performance. Smoke was observed starting from 62, 65 and 70 seconds for specimens 4 to 6 respectively. None of the specimens reached flameout within the 30-minute test duration. Sustained flaming of specimens was observed starting from 166, 128, and 174 seconds for specimens 4 to 6 respectively. During the flaming, burning droplets were noted.

Calculations

Parameters	Unit	Specimen			
		Against Product Direction	4	5	6
Specimen number			4	5	6
Test duration	min	-	30	30	30
Time to reach 50mm	s	-	220	151	231
Flameout time	min	-	-	-	-
Flame spread at 10 min	mm	-	470	535	345
Flame spread at 20 min	mm	-	560	610	498
Flame spread at 30 min	mm	-	645	680	570
Flame spread at flameout	mm	-	645	680	570
Maximum light attenuation	%	-	29.67	39.24	30.50
HF-10	kW/m ²	-	4.04	3.13	6.44
HF-20	kW/m ²	-	2.88	2.38	3.58
HF-30	kW/m ²	-	2.15	1.92	2.78
CHF	kW/m ²	-	-	-	-
Critical heat flux	kW/m ²	-	2.2	2.0	2.8
Smoke obscuration integration	%×min	-	92.90	222.58	90.73

Result

Parameters	Unit	Results
Average flame spread	mm	631.67
Average critical heat flux	kW/m ²	2.4
Average smoke obscuration integration	%×min	135.41



TL-1162



Test Supervisor
 Darren Laker



Technical Lead
 Jessica Ying

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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