

CERTIFICATE

Material Fire Test Certificate

IGNL-9364-05-02C I01R00

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

SPONSOR

Belgotex Floorcoverings (Australia)
 Building 3, Warehouse 8
 161 Manchester Road
 Auburn, NSW, 2144

TEST BODY

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 Test body is the test location



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

Version: IGNL-QF-046-Issue 02 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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Specimen Name

Academia Telford

Specimen Description

The sponsor described the specimen as Tufted Loop Pile Carpet Tile with ProBac Backing. It has a nominal composition of 100% Stainproof Solution Dyed Nylon. The nominal mass per unit area is 450 g/m², and the nominal thickness is 7.5 mm. The specimen is light grey in colour and intended for commercial use. The sponsor requested the specimen adhered to substrate using Nexus-840 pressure sensitive adhesive.

The specimen was received as Solution Dyed Nylon carpet tile, with the front face in grey and the other face in mottled black. Each tile had a measured dimensions of 500 mm by 500 mm. The carpet consisted of three layers: a loop pile surface, a woven base layer, and a black synthetic felt backing. The loop pile had a measured thickness of 2.6 mm, the base layer had a measured thickness of 2 mm, and the black synthetic felt had a measured thickness of 2.5 mm, measured in a total thickness of 7.15 mm. The carpet tiles were cut and adhered to a 7.5 mm thick fibre cement substrate provided by Ignis Labs, using the pressure-sensitive adhesive Nexus-840, for testing in accordance with the AS ISO 9239.1 standard.

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 (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. The specimens were conditioned in accordance with BS EN 13238 at a temperature of 23 ±2 °C and relative humidity of 50 ±5 % for a minimum of 48 hours prior to testing. Specimens 1 to 3 were tested with production direction while specimen 4 was tested against the production direction. A joint was included in the specimen located 250 mm from the front end of the specimen. All specimens were tested until extinguishment.

Observations

All specimens exhibited similar results, and all ignited. Smoke was observed between 73 and 80 seconds into the test. Ignition was observed between 140 and 145 seconds. The flame front spread over the specimens until it reached the first joint of the specimen. Specimens 1 to 3 self-extinguished between 840 and 1215 seconds. After the test, the first third of the specimens were charred, burnt, and discoloured. The joint area between the carpet sections was partially lifted and separated, exposing the underlying layers.

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	183	181	177	176
Flameout time	min	30.00	30.00	30.00	30.00
Flame spread at 10 min	mm	250	230	235	240
Flame spread at 20 min	mm	250	240	235	240
Flame spread at 30 min	mm	250	240	235	240
Flame spread at flameout	mm	250	240	235	240
Maximum light attenuation	%	28.93	30.98	24.07	36.75
HF-10	kW/m ²	8.51	9.02	8.89	8.76
HF-20	kW/m ²	8.51	8.76	8.89	8.76
HF-30	kW/m ²	8.51	8.76	8.89	8.76
CHF	kW/m ²	8.51	8.76	8.89	8.76
Critical heat flux	kW/m ²	8.6	8.8	8.8	8.8
Smoke obscuration integration	%×min	54.64	69.67	60.14	90.98

Result

Parameters	Unit	Results
Average flame spread	mm	241.67
Average critical heat flux	kW/m ²	8.8
Average smoke obscuration integration	%×min	61.49



Test Supervisor
 Darren Laker



Technical Lead
 Jessica Ying