

## ARCTIC SURVEY ( ISOTHERM / SHACKLETON )

Sample description as provided by customer Order No. **6700534264**  
 Pile weight mass/unit area **30 oz/yd<sup>2</sup> 1017 g/m<sup>2</sup>** Pile Fibre Content **100% SOLUTION DYED NYLON**  
 Construction Details **Tufted Secondary Backing Cushion Backing** Colour **Various**  
 Style **Multi Level Loop** Pile Height **mm**  
 The Samples Tested Were **Modular Carpet with Cushion Backing Dimensions 250 mm X 1000 mm**

TEST METHOD: AS.ISO 9239.1 2003 Reaction To Fire Tests For Floorings Part 1 Determination of the Burning Behaviour Using a Radiant Heat Source. As required by the Building Code of Australia (BCA) and National Construction Code 2015 (NCC) specifications C1.10. Sample conditioning as specified in BS EN 13238.2010.

Sample Submitted Date **Jun 2017** Test Date **03 Jul 2017** Total Thickness **8.5 mm**

### Assembly System: DIRECT STICK (Details Below).

The floor covering was directly stuck to the substrate using **Water based Surface Contact adhesive**.

**Substrate: Non-Combustible** - 6mm Fibre Reinforced Cement Board to simulate a Non-Combustible Flooring. The Holding Torque on Specimen Frame was 2Nm.

The standard requires two Initial Tests be conducted on samples mounted in both Length and Width directions. Two further samples are then tested in whichever direction has the lowest Critical Radiant Flux.

Initial Tests: **Length** Direction Critical Radiant Flux **6.2 kW/m<sup>2</sup>**  
**Width** Direction Critical Radiant Flux **5.3 kW/m<sup>2</sup>**

	Specimen Tests conducted in the <b>Width</b> Direction			
	Specimen #1	Specimen #2	Specimen #3	Mean
Critical Radiant Flux (kW/m <sup>2</sup> )	5.3	5.7	6.4	5.8
Smoke Development Rate (%.min)	357	377	343	359

The values quoted below are as required by BCA and NCC Specification C1.10 Fire Hazard Properties (Floors). The Critical Radiant Flux quoted is the value at Flame-Out/Extinguishment (BCA General Provisions A1.1).

**Mean Critical Radiant Flux 5.8 kW/m<sup>2</sup>**

**Mean Smoke Development Rate 359 %.min**

Observations: **The samples shrunk away from the heat source, ignited and burnt a relatively short distance.**

AS.ISO 9239.1 Clause 9(o) The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

All information required for compliance with the BCA and NCC is given on this test report page.



**M. B. Webb**  
Technical Manager

DATE: 03 Jul 2017

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**TIME FOR EACH SPECIMEN TO REACH EACH MARKER IN SECONDS**

Specimen	50	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860
1	193	194	276	319	372	412	496	551	/									
2	245	246	323	411	486	583	741	881	/									
3	195	196	270	324	358	391	502	/										

**TESTS**

**BURNING CHARACTERISTICS**

**SMOKE PRODUCTION**

Specimen	Burn Length (mm) at Flame Out/ Extinguishment	Time To Burn Out (s)	Maximum Light Attenuation (%)	Smoke Development Rate (%.min)
Initial Test: Length	350	859	78	348
Specimen Tests: Width				
1	390	872	80	357
2	370	978	69	377
3	340	814	77	343
Mean	367	888	75	359




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