

## ARCTIC SURVEY ( EXPEDITION )

Sample description as provided by customer

Order No. **PO 6700561675**

Pile weight mass/unit area **26 oz/yd<sup>2</sup> 882 g/m<sup>2</sup>**

Pile Fibre Content **100% SOLUTION DYED NYLON**

Construction Details **Tufted Secondary Backing Tile CUSHION BACKING**

Colour **Multi**

Style **Loop Pile**

Pile Height **mm**

The Samples Tested Were Modular Carpet

TEST METHOD: ISO 9239-1(2010 06-15) Determination of the Burning Behaviour Using a Radiant Heat Source. As required by the New Zealand Building Code Clause C2.1 (January 2017). Sample conditioning as specified in BS EN 13238.2010.

Sample Submitted Date **Sep 2017**

Test Date **03 Oct 2017**

Total Thickness **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 **7.3 kW/m<sup>2</sup>**  
**Width** Direction Critical Radiant Flux **7.1 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> )             | 7.1         | 6.6         | 7.1         | 6.9  |

The value quoted below is as required by the New Zealand Building Code Clause C2.1 (January 2017) "Minimum critical radiant flux when tested to ISO 9239-1:2010". Hence the Radiant Flux quoted is the value at Flame-Out/Extinguishment Not after a 30 minute burn as used in Europe.

## Mean Critical Radiant Flux **6.9** kW/m<sup>2</sup>

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

ISO 9239-1:2010 Clause 10(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 BCNZ is given on this test report page.

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|--|--|--|
|  | <b>M. B. Webb</b><br>Technical Manager             |  |
|  | DATE: 03 Oct 2017                                  |  |
|  | Performance & Approvals<br>Accreditation No. 15393 |  |
|  | Accredited for compliance with ISO/IEC 17025.      |  |

**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        | 211 | 212 | 265 | 316 | 403 | 421 | 579 | /   |     |     |     |     |     |     |     |     |     |     |
| 2        | 197 | 198 | 277 | 335 | 395 | 445 | 522 | /   |     |     |     |     |     |     |     |     |     |     |
| 3        | 216 | 217 | 297 | 322 | 352 | 408 | 587 | /   |     |     |     |     |     |     |     |     |     |     |

**TESTS**

**BURNING CHARACTERISTICS**

| Specimen                     | Burn Length (mm) at Flame Out/ Extinguishment | Time To Burn Out (s) |
|------------------------------|---|----------------------|
| Initial Test: <b>Length</b>  | <b>300</b>                                    | <b>739</b>           |
| Specimen Tests: <b>Width</b> |   |                      |
| 1                            | 310   | 734                  |
| 2                            | 330   | 723                  |
| 3                            | 310   | 750                  |
| Mean                         | 317   | 736                  |




**M. B. Webb**  
Technical Manager

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