



Attn: MS Sue Schultz
 m/s Beaulieu of Australia
 64 Lahrs Rd, Ormeau Q/Ld 4208

LABORATORY TEST REPORT
P172302

LUNAR LANDING

Sample description as provided by customer
 Pile weight mass/unit area 22 oz/yd²
 Construction Details Tufted Secondary Backing Synthetic
 Style Multi Level Loop

Order No. PO 28355
 Pile Fibre Content 100% RESISTAIN SOLUTION DYED NYLON
 Colour Blue/Fawn Shades
 Pile Height 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 Aug 2017 Test Date 22 Aug 2017 Total Thickness mm

Assembly System: DIRECT STICK (Details Below).

The floor covering was directly stuck to the substrate using Roberts 95 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 7.1 kW/m²
 Width Direction Critical Radiant Flux 6.4 kW/m²

	Specimen Tests conducted in the Width Direction			
	Specimen #1	Specimen #2	Specimen #3	Mean
Critical Radiant Flux (kW/m ²)	6.4	5.9	6.2	6.2
Smoke Development Rate (%.min)	83	96	67	82


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 6.2 kW/m²

Mean Smoke Development Rate 82 %.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: 22 Aug 2017

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TIME FOR EACH SPECIMEN TO REACH EACH MARKER IN SECONDS

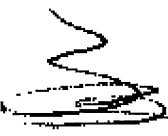
Specimen	50	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860
1	250	252	463	980	1148	1405	1687	/										
2	275	277	404	733	985	1613	2050	2420	/									
3	263	265	440	822	1126	1453	1747	/										

TESTS

TESTS	BURNING CHARACTERISTICS			SMOKE PRODUCTION		
	Burn Length (mm) at Flame Out/ Extinguishment	Time To Burn Out (s)	Maximum Light Attenuation (%)	Smoke Development Rate (%.min)		
Initial Test: Length	310	1,814	22	78		
Specimen Tests: Width						
1	340	2,273	18	83		
2	360	2,432	21	96		
3	350	2,176	17	67		
Mean	350	2,294	19	82		



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2004 04 09 21058 22 August 2017





m/s Beaulieu of Australia
 64 Lahrs Rd, Ormeau Q/Ld 4208
 Attn: MS Sue Schultz

TEST REPORT No. 171936A
 LABORATORY REF: P171936A

CUSTOMER REFERENCE
LUNAR LANDING

Sample description as provided by customer Order No. **PO 27577**
 Pile weight mass/unit area **22 oz/yd²** Pile Fibre Content **100% RESISTAIN SOLUTION DYED NYLON**
 Construction Details **Tufted Secondary Backing Synthetic** Colour **Various**
 Style **Loop Pile** Pile Height / 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 specification C1.10 of the Building Code of Australia.

The test values 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. Clause 9 of AS/ISO 9239 Part 1.

Conditioning as specified in BS EN 13238.2001
 Sample submitted Date **Mar 2017** Test Date **09 Mar 2017**

ASSEMBLY SYSTEM: DOUBLE BOND (DOUBLE STICK)
DUNLOP DB5.

The underlay used was DUNLOP DB5 it was adhered to the substrate using 656 adhesive. The floor covering was adhered to the underlay using 95 adhesive.

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

Initial Test Specimen 1 Length Direction Critical Radiant Flux 3.4 kW/m²
 Specimen 1 Width Direction Critical Radiant Flux 3.1 kW/m²
 Full tests carried out in the Width Direction


SPECIMEN	Width #1	Width #2	Width #3	Mean
Critical Radiant Flux (kW/m ²)	3.1	3.1	3.2	3.1
Smoke Development Rate (%.min)	160	212	185	186

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

MEAN CRITICAL RADIANT FLUX 3.1 kW/m²

MEAN SMOKE DEVELOPMENT RATE 186 percent-minutes


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



M. B. Webb
 Technical Manager

DATE: 09 Mar 2017

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PAGE 1 of 2
 Clause 9 of AS/ISO 9239 Part 1
 The values on Page 2 have no relevance to the Code.
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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	164	165	225	257	321	365	496	619	1099	1658	2258	/						
2	212	213	297	308	318	349	382	548	773	1075	1500	/						
3	218	219	236	291	324	372	473	551	943	1503	1853							

TESTS

	BURNING CHARACTERISTICS			SMOKE PRODUCTION		
	Burn Length (mm) at Flame Out/ Extinguishment	Time To Burn Out (s)	Maximum Light Attenuation (%)	Smoke Development Rate (%.min)		
Initial Test: Length	509	2,419	33	179		
Specimen Tests: Width						
1	530	2,512	34	160		
2	530	2,050	31	212		
3	524	1,953	34	185		
Mean	528	2,172	33	186		



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The laboratory does not allow the use of this page of the report without the use of page 1.
This page alone has no validity under Clause 9 of AS/ISO 9239 Part 1
2004.04.09 13602 4 November 2017



m/s Beaulieu of Australia
64 Lahrs Rd, Ormeau Q/Ld 4208 z

LABORATORY TEST REPORT
P171952A

LUNAR LANDING

Sample description as provided by customer

Pile weight mass/unit area 22 oz/yd²

Construction Details Tufted Secondary Backing Synthetic

Style Loop Pile

Order No. Sue

Pile Fibre Content 100% RESTAIN SOLUTION DYED NYLON

Colour Variations

Pile Height 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 Mar 2017

Test Date 14 Mar 2017

Total Thickness mm

ASSEMBLY SYSTEM: OVER UNDERLAY DUNLOP GOVERNMENT RED.

The UNDERLAY used was DUNLOP GOVERNMENT RED.

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 3.3 kW/m²
Width Direction Critical Radiant Flux 2.6 kW/m²

	Specimen Tests conducted in the Width Direction			
	Specimen #1	Specimen #2	Specimen #3	Mean
Critical Radiant Flux (kW/m ²)	2.6	3.4	2.8	2.9
Smoke Development Rate (%.min)	144	118	115	126

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 2.9 kW/m²


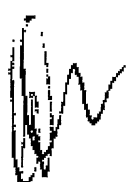
Mean Smoke Development Rate 126 %.min

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.

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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	160	161	164	174	234	274	314	362	386	464	611	1266						
2	126	127	129	131	142	223	286	353	667	1158	1288							
3	128	129	131	135	163	237	322	386	514	743	896	1133						

TESTS

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		515	1,236	37	129			
Specimen Tests: Width								
1		580	1,571	38	144			
2		510	1,383	32	118			
3		560	1,281	37	115			
Mean		550	1,412	36	126			



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2004 04 09 0 12 October 2017