m/s Nuplex Industries (NZ) Ltd
2C, 6 Hurring Place Newlands Wellington 6037 New Zealand
Attn: Mr Lawrence Nicholls

TEST REPORT No. 147932S

LABORATORY REF: P147932S

CUSTOMER REFERENCE

BEAULIEU LIBERATION/NUPLEX UNDERLAY

Sample description as provided by customer Order No. **LN**
Mass/unit area **24** oz/yd² Pile Fibre Content **100% RESISTAIN SOLUTION DYED NYLON**
Construction Details **Tufted** Secondary Backing **Synthetic** Colour **Charcoal**
Style **Loop Pile** Pile Height **/** mm

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 C3.4 (b) (April 2012)

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 10 (o) of ISO 9239-1:2010.

Conditioning as specified in BS EN 13238.2001
Sample submitted Date **Mar 2014** Test Date **12 Mar 2014**

ASSEMBLY SYSTEM: OVER UNDERLAY NUPLEX FORMX BXFCS08703.

The UNDERLAY used was NUPLEX FORMX BXFCS08703.

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 **3.7** kW/m²
Specimen 1 Width Direction Critical Radiant Flux **3.5** kW/m²
Full tests carried out in the **Width** Direction

SPECIMEN	Width #1	Width #2	Width #3	Mean
Critical Radiant Flux (kW/m²)	3.5	3.7	3.2	3.5
Smoke Development Rate (%.min)	210	201	251	221

The value quoted below is as required by the New Zealand Building Code Clause C3.4 (b) (April 2012) "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 3.5 kW/m²

MEAN SMOKE DEVELOPMENT RATE 221 percent-minutes

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

NATA ACCREDITED FOR TECHNICAL COMPETENCE

M. B. Webb
Technical Manager

DATE: 12 Mar 2014

Performance & Approvals
Testing No. 15393
Accredited for compliance with ISO/IEC 17025.

PAGE 1 of 2

Clause 10 (o) of ISO 9239-1:2010

The values on Page 2 have no relevance to the Code.

1004 04 09

APL Australia Pty Ltd
5 Carinish Rd, Oakleigh South
Victoria 3167 Australia

Telephone: 03 9543 1618
Facsimile: 03 9562 1818
Mobile: 0411 039 088

Email: apl@aplaustralia.com.au
Web: www.aplaustralia.com.au
ABN 69 468 849 319

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	196	198	230	286	318	361	484	510	745	1072	/							
2	243	246	247	276	319	397	448	542	883	1206	/							
3	214	216	228	248	273	320	400	493	706	1125	1476	/						

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**	**473**	**1,509**	**63**	**205**
Specimen Tests: **Width**				
1	485	1,499	62	210
2	475	1,253	68	201
3	510	1,481	71	251
Mean	490	1,411	67	221

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

M. B. Webb
Technical Manager

DATE: 12 Mar 2014

Performance and Approvals
Testing No. 15393
Accredited for compliance with ISO/IEC 17025.

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 10 (o) of ISO 9239-1:2010
2004 04 09 14906 13 March 2014

APL Australia Pty Ltd
5 Carinish Rd, Oakleigh South
Victoria 3167 Australia

Telephone: 03 9543 1618
Facsimile: 03 9562 1818
Mobile: 0411 039 088

Email: apl@aplaustralia.com.au
Web: www.aplaustralia.com.au
ABN 69 468 849 319