

20 October 2009

**Client: Tasman Insulation New Zealand Limited**

**TEST CERTIFICATE FOR HARVI-FOIL® EXTRA LIGHT DUTY (110)**

This product has been tested for the properties below according to AS/NZS4200.1:1994.

Tested by Scion:

1. **Folding endurance** according to AS/NZS 4200.1 Based on AS/NZS 1301.423  
Not less than –  
2.00 (i.e log<sub>10</sub>100) in the machine direction  
1.70(i.e log<sub>10</sub>50) in the lateral direction
2. **Resistance to dry delamination** according to AS/NZS 4201.1  
Pass (all 10 test pieces are without delamination)
3. **Resistance to wet delamination** according to AS/NZS 4201.2  
Pass (all 10 test pieces are without delamination)
4. **Shrinkage** according to AS/NZS 4201.3  
Less than 0.5%
5. **Resistance to water penetration** according to AS/NZS 4201.4  
No staining with a head of dye solution of at least 100mm

Tested by the Australian Wool Testing Authority:

1. **Tensile strength** according to AS/NZS 4200.1 Based on AS 1301.448  
Machine direction - greater than 6.0 kN/m  
Lateral direction - greater than 3.5 kN/m
2. **Edge-tear resistance** according to AS/NZS 4200.1 Based on Tappi standard T470.  
Machine and lateral directions: Greater than 30 N

Tested by the University of Western Australia:

**Emittance** according to AS/NZS 4201.5 Based on ASTM E408-71  
Foil – reflective (not greater than 0.05)  
Albar – reflective (not greater than 0.05)

Tested by BRANZ:

**Resistance to water vapour transmission** according to AS/NZS 4200.1 by the  
method of ASTM E96, Procedure B (wet-cup test)  
High (greater than 450MN.s/g)

The results from testing at Scion, UWA and AWTA are from the samples as supplied to Scion by Tasman Insulation New Zealand Limited.



Dr R W Allison  
Project Leader