

9 December 2009

**Client: Fletcher Insulation (NSW) Pty Ltd**

**TEST CERTIFICATE FOR HARVI-FOIL® SINGLE SIDED**

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

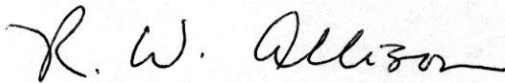
Tested by Scion:

1. **Tensile strength** according to AS/NZS 4200.1 Based on AS 1301.448  
Machine direction - greater than 6.0 kN/m  
Lateral direction - unclassified
2. **Edge-tear resistance** according to AS/NZS 4200.1 Based on Tappi standard T470.  
Machine and lateral directions: greater than 65 N
3. **Folding endurance** according to AS/NZS 4200.1 Based on AS/NZS 1301.423  
Not less than –  
2.00 (i.e  $\log_{10}100$ ) in the machine direction  
1.70(i.e  $\log_{10}50$ ) in the lateral direction
4. **Resistance to dry delamination** according to AS/NZS 4201.1  
Pass (all 10 test pieces are without delamination)
5. **Resistance to wet delamination** according to AS/NZS 4201.2  
Pass (all 10 test pieces are without delamination)
6. **Shrinkage** according to AS/NZS 4201.3  
Less than 0.5%
7. **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 University of Western Australia:

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

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



Dr R W Allison  
Project Leader