



FLAMMABILITY TESTING OF MATERIALS TO AS1530.2

Background and Application

Flammability testing is an important feature within the Australian and New Zealand building and construction industries. In many cases the AS1530.2 Test Method is called upon for testing the flammability characteristics of specific products.

Demonstrating regulatory compliance with these codes is critical for all companies involved in manufacturing products for these markets.

The test is applied in:

- The NZ Building Code (NZBC) for suspended flexible fabrics and membrane structures (underlays to roofing or to exterior cladding); and
- The Australian National Building Code (NBCC) for sarking materials used in Class 2-9 buildings per specification Cl.10 clause 7.



The AS1530.2 Test

Multiple test samples of the material are cut to specific size in both the warp and weft directions and prepared in standard atmospheric conditions prior to mounting on a special frame above a fire source. Upon ignition, the following measurements are recorded:

- the maximum height reached by the flame within 160 seconds (D);
- the time taken for the flame to reach the 21st mark within 54 seconds (if applicable) (t); and
- the air temperature in the flue throughout the test period, to derive specific flammability behavior of the material (A).

From the above data the Spread Factor (E), or Speed Factor (S, if applicable) and Heat Factor (H) are calculated. These figures are then used to determine the **Flammability Index** (I) of the material.

The Flammability Index is obtained from either $I = H + E$ or $I = H + S$, whichever is larger. The lower the Flammability Index value, the less flammable the material being measured.



Advice on 1530.2 Flammability Testing

NZWTA Ltd has a comprehensive understanding of AS1530.2 and its application to various products, materials and industries. If you are involved with manufacturing materials that require flammability testing, *contact NZWTA Ltd on:*

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