

## **Important NCC 2019 Changes Effective 1 May 2020 – Is your Supply Source Compliant**

### **NCC 2019 Calls for new insulation testing protocols, and new thermal declaration and labelling requirements.**

May 2020 marks a significant milestone for Australia's Insulation industry, marking the compliance deadline for revised Insulation Standard AS/NZS 4859.1.2018 under NCC 2019. This is the most significant change to the insulation compliance landscape from both a fire testing and thermal testing perspective in over a decade, redefining how products are tested and declared.

All manufacturers must comply with the amended Standard after the transition period concludes on 1 May 2020. Thermal requirements are listed under NCC 2019 Vol. 1 Part J1.2 Thermal Construction – General and Vol. 2 Part 3.12.1.1 – Building Fabric Thermal Insulation. A statistical assessment of at least 10 test results is now required for each material assessed for R-Value and thermal conductivity.

The amended Standard affects product testing and thermal performance evaluation, affecting the calculation and declaration of R-Values with a focus on bulk insulation, reflective foil insulation and rigid foam insulations.

According to IA's Technical Committee, the most significant changes regarding thermal testing and formal declarations of performance labelling are:

- Identical statistical assessment applies to all insulation materials (except vacuum insulation panels).
- Heat aging methods required for determining long-term thermal values for rigid foam insulation materials are now aligned with more stringent European Standards, more accurately representing long-term in-situ performance.
- Phenolic foam (PF) insulation is now included with a requirement for aging for 14 days at 110°C, or for 175 days at 70°C, or using a prescribed slicing method.
- Polyisocyanurate (PIR) and Polyurethane (PUR) insulations now require heat-aging for 175 days at 70°C or using a prescribed slicing method.
- Extruded Polystyrene (XPS) insulation now requires aging for up to 90 days at 23°C, depending on product thickness and composition.
- Expanded Polystyrene (EPS) is not required to be aged before testing.

Adoption of the revised Insulation AS/NZS 4859.1.2018 includes a raft of changes in thermal declarations and labelling.

- The 'Declared R-Value' or 'Declared  $\lambda$ -Value' must not be higher or lower than the R50/90 or  $\lambda$  50/90 respectively.



- Labelling must now include manufacturing location and relevant temperature for declared thermal values (23°C for Australia and 15°C for New Zealand).
- Total R-Values are no longer acceptable for product labelling.

Insulation Australasia advises manufacturers, building certifiers, specifiers and builders to ensure they are across these changes with reference to the new fire testing requirements under Specification C1.10 Clause 7 of NCC 2019 Vol 1., as well as compliance with AS/NZS4859.1:2018 under NCC 2019 Vol. 1 Part J1.2 Thermal Construction – General and Vol.2 Part 3.12.1.1 Building Fabric Thermal Insulation.

NCC 2019 is available free to practitioners at <https://ncc.abcb.gov.au/>

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