

Fire hazard properties

What are the proposed changes?

We're proposing changes to NCC Volume One to improve the requirements for fire hazard properties of a building material, component, or assembly.

These changes include updates to how fire hazard properties are determined (A5G6) by introducing multiple pathways.

We've proposed changes to the way testing standards are referenced in the Deemed-to-Satisfy (DTS) Provisions that require a building material, component, or assembly to have a fire hazard property.

Compared to the current edition of the code, for the next edition of the NCC we're proposing two options to determine fire hazard properties as shown in the table below.

Table 1 Options for determining fire hazard properties

| NCC version | Compliance option/s |
|-------------------------|--|
| 2022 (current) | <ul style="list-style-type: none">• Testing |
| Next edition (proposed) | <ul style="list-style-type: none">• Testing by an ATL• Assessment by an ATL |

Accredited Testing Laboratory ATL

An ATL is an organisation that has been accredited in Australia by the [National Association of Testing Authorities Australia \(NATA\)](#) to undertake relevant tests. It can also be an organisation not based in Australia that is accredited by a body recognised by NATA through mutual recognition.

Testing by an ATL

As with NCC 2022, the proposed changes for the next edition of the NCC will allow you to determine fire hazard properties by testing of an identical prototype in accordance with the

reference test standards. The difference with the proposed changes for the next edition of the NCC is that the testing can only be done by an ATL.

Assessment by an ATL

If a building material, component or assembly differs only by a minor degree to the tested prototype, the proposed changes will allow you to determine the fire hazard property through a product assessment undertaken by an ATL. Examples of minor variations include, but are not limited to, thickness, colour, perforation patterns or mounting methods.

Reports issued by the ATL must:

- Confirm that the building product, component, or assembly can achieve the fire hazard property despite the minor departures from the tested prototype; and
- Describe the materials, construction and conditions of restraint and other limitations which are necessary to achieve the fire hazard property.

Any product variation will need to be examined on a case-by-case basis by the ATL depending on the type of variation, end-use, and the limits chosen to ensure that the fire hazard property remains unchanged. The influence of a combination of variations on the fire hazard property of the product, component or assembly may be inter-related.

Why are these changes proposed?

The proposed changes aim firstly to clarify the current DTS Provisions in NCC 2022 and secondly to align, as far as possible, with common industry practice to determine the fire resistance of a building material, component, or assembly.

There are currently mixed interpretations as to the NCC referenced testing standards required to determine fire hazard properties. In addition, most products in the market typically consist of variations. A requirement to test every unique product:

- imposes a high cost to industry
- stifles innovation
- creates longer lead times
- limits the products available in the market.

We've proposed these changes to resolve these issues by providing a clear pathway to determine fire hazard properties. The proposed changes aim to improve the quality and consistency of testing by adding the requirement to have these tested at an ATL. These changes

also modernise the NCC and make it easier to determine fire hazard properties for products with minor variations to the tested system, without the need for further testing.

Refer to Table 2 for a summary of proposed changes for the testing standards to be referenced in the next edition of the NCC.

How were the changes developed?

These changes stemmed from a [Proposal to Change](#) the NCC we received from industry and then refined in consultation with key stakeholders.

Who has been involved?

We consulted with members of our peak technical committee, the [Building Codes Committee](#), ATLs and the proponent of the proposal.

What are the impacts?

These changes will clarify the compliance pathways, reduce testing costs and lead times, and support consistent interpretation of the DTS Provisions. This will give certainty to product manufacturers, builders, and building surveyors/certifiers.

More information and relevant links

To read the full details of the changes, please review the [NCC 2025 Volume One PCD](#).

Want to provide feedback?

Responses to the Public Comment Draft are invited until **11:59 PM AEST Monday 1 July 2024**.

In line with the ABCB's process for undertaking public consultation, comment will only be accepted through the ABCB's online [Consultation Hub](#).

To access the Public Comment Draft and response form:

1. Download the NCC volume(s) you wish to view and provide comment. You can also download the *supporting information* PDF for detailed information on the more significant/complex changes.
2. Download the response form.

Once you've reviewed the draft, complete the response form, and include your feedback on the suggested changes to the NCC.

To submit your comments:

1. Enter our Public Comment Draft consultation hub.
2. Start by agreeing to the privacy statement.
3. Let us know if you'd like your submission published publicly.
4. Enter your contact details.
5. Upload your completed form in .doc format (please make sure each file is under 25MB) and submit.

Table 3 Summary of proposed changes for the testing standards to be referenced in the next edition of the NCC

| Fire hazard property | NCC 2022 reference(s) | Proposed reference |
|--|------------------------------|---------------------------|
| Critical radiant flux (CRF) | Specification 1 | AS ISO 9239.1 |
| Smoke development rate | Not referenced in A5G6 | |
| Smoke-Developed Index | Specification 3 | AS/NZS 1530.3 |
| Spread-of-Flame Index | Specification 3 | |
| Group number | S7C4 (2) | AS 5637.1 |
| Average specific extinction area | Specification 1 | |
| Smoke growth rate index (SMOGR _{RC}) | S7C4(2) | |
| Flammability Index | Specification 1 | AS 1530.2 |
| Combustibility | Not referenced in A5G6 | AS 1530.1 |