

AS ISO 9705-2003 and AS 5637.1:2005

The National Construction Code of Australia (NCC) and AS 5637.1:2015 stipulates the classification of materials by Group Number, which indicates the amount of time taken for the material being tested to reach flashover under AS ISO 9705 — 2003 test conditions. The NCC and AS 5637.1:2015 define flashover to be a Heat Release Rate of 1 MW, so materials are classified, in accordance with NCC 2016 spec Cl.10 and AS 5637.1 2015, by the time taken for the Heat Release Rate, as measured during the AS ISO 9705 test, to reach 1 MW per the scheme below;

- Group 1 — Materials classified as Group 1 do not reach flashover after ten minutes exposure to a heat source delivering 100 kW immediately followed by a further ten minutes exposure to 300 kW.
- Group 2 — Materials classified as Group 2 reach flashover after ten minutes of exposure to a 100 kW heat source.
- Group 3 — Materials classified as Group 3 reach flashover after 2 minutes, but before 10 minutes of exposure to a 100 kW heat source.
- Group 4 — Materials are classified as Group 4 if they reach flashover before 2 minutes of exposure to a 100 kW heat source.

The NCC and AS 5637.1:2015 also define the smoke growth rate index, or $SMOGR_{RC}$ as a quantity which may be obtained from the smoke obscuration measurements obtained in the AS ISO 9705 test

SAS International Ceiling System classification

SAS International have carried out a series of Fire Tests in accordance with the above standard for our metal ceiling systems and associated products including:

- Perforated (Up to 22% free area) polyester powder coated metal panels
- Up to 30mm thickness mineral wool acoustic inlays (80 kg/m³ density) and/or Acoustic Fleece backing

The material subjected to this AS ISO 9705 test did not reach a Heat Release Rate of 1 MW during the 1200 second exposure period. Therefore the system has achieved a classification and smoke growth rate:

Classification: Group 1.
 $SMOGR_{RC} 4.4m^2s^{-2} \times 1000$

Further information with regards to SAS fire testing is available via our Technical Department.