NATURAL STONE AND AS 1530.1:
MEETING NON-COMBUSTIBILITY STANDARDS

Natural stone is considered non-combustible under AS 1530.1 due to its inherent material properties and its performance in standardised fire testing.

UNDERSTANDING AS 1530.1: COMBUSTIBILITY TEST FOR MATERIALS

AS 1530.1 is an Australian standard that evaluates how materials behave when exposed to extreme heat. In this small-scale test, the material is assessed based on sustained flaming, furnace temperature rise, and surface temperature increase. It's one of the benchmarks used in the building industry to determine whether a material can be classified as non-combustible.

If a material remains stable, does not ignite, does not support combustion, and does not degrade in a way that increases fire risk, it may be deemed non-combustible under this standard.

WHY NATURAL STONE PASSES AS 1530.1

Natural stone, being a mineral-based material formed through geological processes (igneous, sedimentary, or metamorphic), typically consists of inorganic compounds that do not undergo significant decomposition or combustion under the test conditions in AS 1530.1. Stones such as granite, marble, and limestone are primarily composed of silicates and carbonates—materials with high melting points and no volatile organic content.
As a result, natural stone:

- Does not ignite or sustain combustion under high temperatures
- Exhibits negligible mass loss when exposed to fire
- Does not contribute to flame spread or smoke development
- Shows zero or negligible sustained flaming
- Causes minimal to no significant temperature increase in the furnace or specimen

These characteristics mean natural stone inherently meets the non-combustibility requirements of AS 1530.1. It is also considered a "deemed-to-satisfy" (DtS) non-combustible material under the National Construction Code (NCC), which means it is accepted without the need for additional fire testing.

Natural stone's inherent fire-resistant properties and performance under AS 1530.1 make it a reliable and compliant choice for non-combustible construction. Its use supports adherence to Australian fire safety regulations and contributes to the durability and resilience of building structures.