

## Gas Information Sheet No. 53

# The suitability of reconstituted stone as a fire resistant facing material in kitchen splash backs

Reconstituted stone, also known as 'quartz surface', is a popular product used for various domestic surfacing applications and in kitchen and bathroom bench tops and splashbacks. A well-known brand of reconstituted stone is Caesarstone.

When considering a material for use as a kitchen splashback that will be less than 200 millimetres from the edge of a hotplate burner:

- The material must be fire resistant (non-combustible) in accordance with AS/NZS 5601 Appendix C.

Reconstituted stone, while highly durable, is usually made of stone powder bonded with a polyester resin that can burn, and so may be unsuitable for use without a suitable clearance around the cooker or hotplate.

- The material, when placed directly on a combustible surface to offer protection (for example directly onto a timber stud) must have a heat transfer coefficient not exceeding  $20\text{W/m}^2\text{K}$ .

Reconstituted stone products that claim to be fire resistant must comply with the requirements of AS/NZS 5601 Appendix C to be considered fire resistant.

## Necessary qualities of fire resistant materials

Examples of fire resistant materials used in kitchen splash backs include ceramic tiles, toughened safety glass and sheet metal of a specific thickness, and matched with a specific type of backing board (for example, a gypsum-based wall board or fibre cement board with a specified minimum thickness depending on the type of fire resistant facing material being used).

To qualify as fire resistant, a material must comply with a number of Australian Standards including AS/NZS 5601 Appendix C and the specification for fire resistant material, which includes AS/NZS 1530.1 (combustibility) or AS/NZS 1530.3 (the simultaneous determination of ignitability, flame propagation, heat release and smoke release), and a series of additional properties that specify the material's minimum thickness, compressive strength, and deformability.

## Assessing a product for use as a fire resistant material

When assessing a product for use as a fire resistant material, refer to AS/NZS 5601 Appendix C - Fire Resistant Material and Acceptable Methods of Protection of Combustible Surfaces, which specifies the necessary thermal and physical properties of a material suitable for protecting combustible surfaces.

Materials proposed for use as fire resistant that are not already considered by AS/NZS 5601 Appendix C must be independently tested for compliance with the Australian Standard.

For more information, please contact ESV by phoning 1800 652 563 (**the Gas Technical Helpline**), or emailing [gastechnicalenquiry@energysafe.vic.gov.au](mailto:gastechnicalenquiry@energysafe.vic.gov.au).

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For more information about fire resistant facing materials and clearances around appliances, see:

- [Gas Information Sheet 03: Fire resistant boards.](#)
- [Gas Information Sheet 06: Feature walls in domestic kitchens.](#)
- [Gas Information Sheet 15: Is the wall behind that commercial catering equipment non-combustible?](#)
- [Gas information sheet 25: Domestic gas cooking appliance clearances.](#)