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Fire Testing of ColorCote® Prepainted Metal Substrates.

Pacific Coilcoaters' ColorCote® range of products is used in the manufacture of roofing, vertical cladding and rainwater goods in New Zealand buildings. The safety of those using these buildings is paramount and fire ratings are an important component of this safety.

Methodology

Pacific Coilcoaters pre painted metal substrates have been tested by the CSIRO Division of Materials Science and Engineering, NSW, Australia in accordance with International Standard ISO 5660-1:2002 Reaction-to-fire tests – Heat release, smoke production and mass loss rate – Part 1: Heat release rate (cone calorimeter method) and Part 2: Smoke production rate (dynamic measurement), at 50kW/m².

All test samples were exposed in the horizontal orientation with the standard pilot operating.

The number Group 1-S was determined in accordance with the Verification Method C/VM2 Appendix A Paragraph A1.2 and Paragraph A1.3 of the New Zealand Building Code.

The average specific extinction area was determined in accordance with Verification Method C/VM2 Appendix A Paragraph A1.2 of the New Zealand Building Code.

Results

All products in the ColorCote® range of roofing and cladding materials were tested to the requirements of ISO 5660-1:2002 and the results are as follows:

	Group Number	Average Specific Extinction Area	Peak Heat Release Rate kW/m ²	Total Heat Released MJ/m ²
ZinaCore™ (0.55mm)	Group 1-S	47.9	6.1	0.23
MagnaFlow™ (0.55mm)	Group 1-S	80.6	0.7	1.23
AlumiGard™ (0.90mm)	Group 1-S	53.5	4.5	0.11

Assessment certificates are available upon request.