

Ref. No.: FH5636

January 28th 2015

# Rockcote Resene Ltd P.O. Box 39108 CHRISTCHURCH 8545

Attention: Mark Flewellen

Dear Mark,

# Cone Calorimeter Testing of Rockcote Plaster Systems over Graphex EPS

Conformance with the exterior surface finish requirements for exterior claddings is met by complying with the requirements of New Zealand Building Code (NZBC) Acceptable Solution C/AS1 Paragraph 5.4, and NZBC Acceptable Solutions C/AS2 – C/AS6 Paragraph 5.8.1, i.e. determination of the peak rate of heat release and total heat released from the external wall cladding system in accordance with NZBC Acceptable Solutions C/AS1 – C/AS6 Appendix C C7.1 (testing to ISO 5660 Part 1). NZBC Acceptable Solutions C/AS1 – C/AS6 set the allowable distance to the relevant boundary for exterior walls for each Risk Group depending on the test results achieved.

In late 2014, BRANZ undertook indicative cone calorimeter testing of four Rockcote Plaster Systems over Graphex EPS. The results were as outlined below.

# System 1: Ezytex or Tasman / Limelock / Armour

Peak rate of heat release: 98.2 kW/m<sup>2</sup> Total heat release: 7.4 MJ/  $m^2$ 

# System 2: Ezytex or Tasman / Limelock / X200

Peak rate of heat release: 115.2 kW/m<sup>2</sup> Total heat release: 8.9 MJ/  $m^2$ 

## System 3: Render Prime / Classico / Armour

Peak rate of heat release: 161.1 kW/m<sup>2</sup> Total heat release: 10.7 MJ/  $m^2$ 

# System 4: Render Prime / Classico / X200

Peak rate of heat release: 190.9 kW/m<sup>2</sup> Total heat release: 12.1 MJ/  $m^2$ 

Based on the results above, it was decided to proceed with the full set of tests for Systems 1 and 2. No further testing was completed for Systems 3 or 4. The final results for System 1 are recorded in BRANZ Report FH5636 and the results for System 2 are recorded in BRANZ Report FH5638.



Systems 3 and 4 are unclassified and Rockcote Insulated Façade System installations with these plaster and finishing systems are limited to use on buildings with an SH Risk Group classification, a building height of  $\leq 10$  m and a distance of  $\geq 1.0$  m to the relevant boundary. Refer to NZBC Acceptable Solutions C/AS1 – C/AS6 Paragraph 5.8.1 for the specific exterior surface finishes requirements for other building Risk Groups.

As always, if you have any questions or require any additional assistance, please don't hesitate to contact me.

Yours faithfully,

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Jason Wanden Appraisal Project Manager

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