



BRANZ Appraised

Appraisal No. 400 [2016]

DURABOND™ ROOF POINTING COMPOUND

Appraisal No. 400 [2016]

This Appraisal replaces BRANZ Appraisal No. 400 [2009]



BRANZ Appraisals

Technical Assessments of products for building and construction.

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Product

- 1.1 DurAbond™ Roof Pointing Compound is a pre-mixed, pre-coloured, acrylic, resin-based roof pointing compound which has better flexibility, adhesion, and faster curing than standard sand-cement mortar.
- 1.2 The product is available in a range of colours to match roof tile manufacturer's colour range.

Scope

- 2.1 DurAbond™ Roof Pointing Compound has been appraised as a roof pointing compound for ridge, hip and apex tile (caps) on concrete and terracotta tiled roofs on buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
 - situated in NZS 3604 Wind Zones, up to, and including Extra High.
- 2.2 The DurAbond™ Roof Pointing Compound must be installed by competent tradespersons.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, DurAbond™ Roof Pointing Compound if used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:
 - Clause B1 STRUCTURE:** Performance B1.3.1, B1.3.2 and B1.3.4 for the relevant physical conditions of B1.3.3. DurAbond™ Roof Pointing Compound will meet these requirements. See Paragraph 8.1.
 - Clause B2 DURABILITY:** Performance B2.3.1 (b), 15 years. DurAbond™ Roof Pointing Compound will meet this requirement. See Paragraph 10.1.
 - Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. Roofs incorporating DurAbond™ Roof Pointing Compound will meet this requirement. See Paragraph 13.1.
 - Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. DurAbond™ Roof Pointing Compound will meet this requirement and will not present a health hazard to people.
- 3.2 This is an Appraisal of an **Alternative Solution** in terms of New Zealand Building Code compliance.

Technical Specification

- 4.1 DurAbond™ Roof Pointing Compound is a pre-mixed, pre-coloured, acrylic resin-based compound with a paste-like consistency. It is available in all the standard colours of roof tile manufacturers. The product is supplied in 10 litre containers.

Handling and Storage

- 5.1 Handling and storage of all materials whether on or off site is under the control of the installer. Dry storage must be provided for the product and containers must be stored with lids tightly fitted, out of direct sunlight and at temperatures of not less than 5°C or greater than 45°C.
- 5.2 Unopened containers must be used within the designated shelf life of 12 months from the date of manufacture.

Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the DurAbond™ Roof Pointing Compound. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

General

- 7.1 DurAbond™ Roof Pointing Compound is used for the attachment and pointing of concrete or terracotta ridge, hip or apex roof tiles (often referred to as caps), bedded on sand-cement bedding mortar. It can also be used to replace cracked or loose sand-cement finishing plaster on existing tiled roofs.
- 7.2 DurAbond™ Roof Pointing Compound is an alternative to mechanical fasteners used for fastening ridge tiles (as specified in NZS 4206) when applied in accordance with the manufacturer's instructions at a thickness not less than 3 mm, and when bonded for the full depth of the edge of the ridge tile (cap) and not less than 3 mm onto the roof tile.
- 7.3 Due to its flexible and adhesive properties, DurAbond™ Roof Pointing Compound will cover minor cracks in the sand-cement bedding mortar caused by shrinkage or flexural movement of the roof. However, it may not bridge cracks that occur in the underlying bedding mortar when these are extensive, or wider than 0.5 mm.
- 7.4 Initial curing is obtained in approximately 24 hours. DurAbond™ Roof Pointing Compound must not be exposed to rain for the first 12 hours of curing. Full strength is achieved within 14 days.

Structure

- 8.1 DurAbond™ Roof Pointing Compound is an adequate means of securing roof ridge tiles in all Wind Zones (including Extra High), as defined in NZS 3604.

Substrates

Concrete Tiles

- 9.1 Concrete tiles must meet the specific requirements of NZS 4206.

Durability

Serviceable Life

- 10.1 DurAbond™ Roof Pointing Compound when subjected to normal conditions of environment and use is expected to have a serviceable life of at least 15 years and be compatible with expected serviceable life of concrete and terracotta tiles. Some surface erosion may occur towards the end of its serviceable life.

Maintenance

- 11.1 Maintenance requirements of the pointing compound are provided by the pointing compound supplier.
- 11.2 In the event of damage to the pointing compound, the pointing compound must be repaired by removing the damaged portion and re-applying the pointing compound as for new work.

Prevention of Fire Occurring

- 12.1 Separation or protection must be provided to DurAbond™ Roof Pointing Compound from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

External Moisture

- 13.1 When installed in accordance with this Appraisal and the Technical Literature, DurAbond™ Roof Pointing Compound will prevent the penetration of water and will therefore meet code compliance with NZBC Clause E2.3.2. The pointing compound is impervious to water and will give a weathertight roof.

Installation Information

Installation Skill Level Requirement

- 14.1 Installation of the pointing compound must be completed by competent tradespersons, in accordance with the instructions on each container.
- 14.2 Installation of substrates must be completed by tradespersons with an understanding of roof construction, in accordance with instructions given within the DurAbond™ Roof Pointing Compound Technical Literature and this Appraisal.

Preparation of Substrate

- 15.1 Tiles must be clean, dry and free from oil and moisture (including frost), before DurAbond™ Roof Pointing Compound is applied.

Installation

- 16.1 Bedding mortar must be fully trowelled, dry, free of foreign matter, voids, nibs and projections, and be finished plumb. The leading edge of tiles must be free of bedding mortar to enable the DurAbond™ Roof Pointing Compound, to fully adhere.
- 16.2 DurAbond™ Roof Pointing Compound must be trowelled onto the base sand-cement bedding mortar with a minimum thickness of 3 mm, and must bond to both ridge and roof tiles. The thickness of DurAbond™ Roof Pointing Compound should be 3-5 mm. This should be checked regularly with the tip of the trowel during application. At the ends of the ridge cap tiles where they overlap (collars), the DurAbond™ Roof Pointing Compound must be forced underneath and trowelled off on a slight angle, [5-15° off vertical].
- 16.3 The product must not be installed when temperatures are less than 10°C or greater than 35°C.

Inspections

- 17.1 Critical areas of inspection for pointing compounds are:
 - Acceptance of the substrate by the pointing compound installer prior to application of the pointing compound.
 - Installation of the pointing compound as per the instructions.

Health and Safety

- 18.1 Safe use and handling procedures for the pointing compound are provided in the Technical Literature.
- 18.2 The product must be used in conjunction with the relevant Materials Safety Data Sheet.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 19.1 Testing has been carried out by BRANZ to determine the wind-uplift resistance of concrete tile ridge caps using DurAbond™ Roof Pointing Compound.
- 19.2 Accelerated weathering tests involving thermal and moisture cycling have also been carried out by BRANZ.

Other Investigations

- 20.1 A durability opinion has been given for the DurAbond™ Roof Pointing Compound by BRANZ technical experts.
- 20.2 Site visits have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.
- 20.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

- 21.1 The manufacture of the DurAbond™ Roof Pointing Compound has been examined by BRANZ, and details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.
- 21.2 The quality of supply of the product to the market is the responsibility of Rolling Stone Cleaning Co. Ltd.
- 21.3 Quality on site is the responsibility of the tradespersons.
- 21.4 Designers are responsible for the roof design, and building contractors are responsible for the quality of construction of the roof in accordance with the instructions of the tile manufacturer, Rolling Stone Cleaning Co. Ltd and this Appraisal.

Sources of Information

- NZS 3604: 2011 Timber-framed buildings.
- NZS 4206: 1992 Concrete interlocking roof tiles.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 [Amendment 6, 14 February 2014].
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.



Application of DurAbond™ Roof Pointing Compound



Completed DurAbond™ Roof Pointing Compound



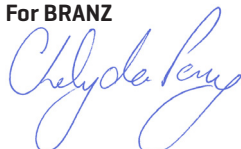
In the opinion of BRANZ, **DurAbond™ Roof Pointing Compound** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Rolling Stone Cleaning Co. Ltd**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **Rolling Stone Cleaning Co. Ltd:**
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions.
 - d) Warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **Rolling Stone Cleaning Co. Ltd**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Rolling Stone Cleaning Co. Ltd** or any third party.

For BRANZ



Chelydra Percy

Chief Executive

Date of Issue:

20 May 2016