



**BRANZ  
APPRAISAL  
CERTIFICATE  
No. 416 (2001)**

**DECRAGARD  
ROOF  
COATING  
SYSTEMS**

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Readers are advised to check that this Certificate has not been amended, withdrawn or superseded by a later issue. Refer to the "Valid Certificates Index" in BUILD magazine published by BRANZ, the Certificate Listing on the BRANZ Internet Site, or contact BRANZ.

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## Product

- This Certificate relates to Decragard Roof Coating Systems, which are a range of treatments for the refurbishment of existing roofs. The coating systems are intended to improve the appearance and extend the lives of roofs. The components for Decragard Roof Coating Systems are manufactured by AHI Roofing Limited.
- Decragard Roof Coating Systems have been appraised for the refurbishment of existing roofs when applied to metal tile (chip texture or painted), concrete tile and profiled galvanised and Zinalume® steel (coated and uncoated).
- Decragard Roof Coating Systems are applied only by licensed Decragard applicators, in accordance with the AHI Roofing Limited document entitled 'Decragard Application Manual', dated October 2000.



*Decragard Roof Coating Systems: Before (inset) and After.*

## Building Regulations

### 1. New Zealand Building Code (NZBC)

The use of the Decragard Roof Coating Systems themselves are not specifically controlled by the New Zealand Building Code. However, as application of the coating systems on roofs could impact on the NZBC Performance Clauses C3 Spread of Fire, F2 Hazardous Building Materials and G12 Drinking Water, these aspects are addressed in the Certificate.

## Product Information

### 2. General

2.1 Decragard Roof Coating Systems are a range of preparations, primers/basecoats and topcoats for the refurbishment of existing roofs. The range of materials used in the Decragard systems is listed in Table 1.

**Table 1 Decragard Materials**

<b>Preparations</b>
Chemical and detergent roof washes which are spray-applied
<b>Primers/Basecoats</b>
Purpose-formulated primers and basecoats (including chip-textured) which are spray-applied or applied by spot-priming by brush
<b>Topcoats</b>
Acrylic-based topcoats for textured or non-textured finishes which are spray-applied or spot-touched by brush

2.2 Decragard Roof Coating Systems are available in 18 colours. Custom colours may be available on request to the manufacturer.

### 3. Handling and Storage

3.1 The Decragard Application Manual contains details of the safe handling and storage of the Decragard materials. The materials are appropriately labelled and must be stored in sealed containers in a dry, well-ventilated area. They must be protected from direct sunlight and cold, and must be stored away from heat sources at temperatures below 40° Celcius.

3.2 All Decragard materials stored in accordance with the Decragard Application Manual should have a shelf life in excess of two years.

## Design Information

### 4. General

4.1 Decragard Roof Coating Systems are designed to improve the appearance and extend the lives of existing roofs. Decragard is also suitable for use on new roofs to achieve desired colours and textures.

4.2 The Decragard Roof Coating Systems are suitable for use on metal tile (chip-texture or painted), concrete tile and profiled galvanised and Zinalume® steel (coated or uncoated) roofs. The application of Decragard to any other roof substrates has not been assessed and is outside the scope of this Certificate.

4.3 An initial assessment of the roof must be made by a licensed Decragard applicator to determine if the condition of the roof is suitable for a Decragard system. It is the sole responsibility of the licensed applicator to determine if the roof is in an acceptable condition.

4.4 Roofs deemed suitable for coating are treated with a chemical wash then water blasted to removed moss, lichen, algae growth, grime and chalking.

4.5 Any necessary repairs identified in the initial assessment must be carried out before the roof is water blasted to prevent any possible damage caused by leakage. Depending on the roof type, repair work may include repairing or replacing any damaged or corroded materials or fixings. Any corrosion or

repair made evident during water blasting must be remedied.

4.6 An appropriate purpose-formulated Decragard basecoat or primer is used to prepare the roof substrate for application of the topcoat. For textured metal tile coating systems, chip is combined with the basecoat or primer, prior to the application of the Decragard topcoat.

4.7 The Decragard Roof Coating Systems use a purpose-formulated topcoat specifically designed for the roof substrate.

4.8 The manufacturer recommends that Decragard be used to extend the life of its own range of metal tile roofing systems. Recoating should be carried out 15 to 20 years after installation, or while the original coating is still in a sound condition. Refer to BRANZ Appraisal Certificate No. 314 (1999).

### 5. Durability

#### Service Life

5.1 The Decragard Roof Coating Systems are expected to extend the life of existing roof cladding. The serviceable life of Decragard is dependent on the original condition of the roof substrate at the time of coating, and on the provision that it is applied and maintained in accordance with the manufacturer's instructions and this Certificate.

#### Maintenance

5.2 To avoid cracking, denting or any other damage to the Decragard coating, walking on the roof should only occur if absolutely necessary. If it is necessary to walk on the roof, soft-soled shoes should be worn, and loads should be placed over battens or rafters.

5.3 In certain locations, due to humidity and the proximity of shrubs and trees, lichen and moss may grow on the Decragard coating. The manufacturer recommends that this growth be removed by spraying with a suitable chemical cleaner. A local Decragard licensed applicator should carry out this work. A moss, lichen and algae inhibitor is included in the Decragard coating to slow the onset of such growth.

5.4 Areas of the roof that are not washed by rain should be washed down with fresh water approximately every six months. In marine environments, or in areas exposed to industrial pollution, washing down should be carried out every two to three months.

5.5 The manufacturer recommends that a Decragard coating should be reapplied 10 to 15 years after the first application.

### 6. Spread of Fire

The Decragard Roof Coating Systems are made from combustible materials which are applied to non-combustible substrates (steel and concrete), and are exempt from surface finish requirements by Acceptable Solution C/AS1 Part 7, Paragraph 7.11.1.

### 7. Water Supplies

7.1 Rainwater collected from roofs coated with Decragard Roof Coating Systems will comply with the provisions of NZBC Clause G12, provided water is not contaminated from other sources, and provided the coating is maintained in good condition.

7.2 During the application of Decragard (including preparation treatments), any potable water collection system must be disconnected from the storage tank. Water collection systems must also be disconnected when carrying out maintenance in the form of chemical washing.

7.3 The water collection system must remain disconnected after the completion of the coating application or chemical washing until the roof has been washed by three good rainfalls.

## Installation Information

### 8. General

The application of Decragard Roof Coating Systems is carried out by a licensed Decragard applicator, in accordance with the Decragard Application Manual.

### 9. Health & Safety

The Decragard Application Manual outlines health and safety procedures for the handling and application of Decragard materials. Protective clothing must be worn when applying Decragard materials.

## Basis of Appraisal

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

### 10. Tests

Routine production testing is carried out on the Decragard Roof Coating Systems by the manufacturer. The testing covers humidity resistance, salt fog spray exposure, natural and accelerated weathering, in-can stability, adhesion, flexibility, sag resistance, flow properties, rheology, water permeability, gloss cover and coating hardness. Test methods and results have been reviewed by BRANZ and found to be satisfactory.

### 11. Other Investigations

11.1 A durability opinion has been given by BRANZ technical experts based on examination of existing application sites, product composition and routine production test methods and results.

11.2 A review of the quality audits regularly undertaken by AHI Roofing Limited of licensed Decragard Applicators has

been carried out by BRANZ and found to be satisfactory.

11.3 An investigation into the effects of rainwater contact with Decragard Roof Coating Systems was carried out by WSL Consultants Pty Limited in accordance with World Health Organisation Criteria for Drinking Water Quality. The result of this investigation has been reviewed by BRANZ and found to be satisfactory.

11.4 Site visits have been carried out by BRANZ to assess the practicability of application and to view completed applications.

11.5 The manufacturer's document entitled 'Decragard Application Manual', dated October 2000, has been reviewed by BRANZ and found to be satisfactory.

11.6 Material Data Sheets for materials used in the Decragard Roof Coating Systems have been examined.

### 12. Quality

12.1 The processes, including methods adopted for quality control and details of the quality and composition of the materials, have been examined by BRANZ and found to be satisfactory.

12.2 The quality control systems of AHI Roofing Limited have been assessed and registered by TELARC Limited as meeting the requirements of AS/NZS ISO 9001, Registration Number 739.

12.3 The manufacturer is responsible for the quality of the product supplied.

12.4 The quality of application is the responsibility of the licensed Decragard applicator.

### 13. References

- New Zealand Building Code Handbook and Approved Documents, Building Industry Authority, 1992.
- The Building Regulations 1992, up to and including the December 2000 Amendment.

In the opinion of BRANZ, Decragard Roof Coating Systems are fit for purpose and will comply with the Building Code to the extent specified in this Certificate provided they are used, designed, installed and maintained as set out in this Certificate.

This Certificate is issued only to the Certificate Holder, AHI Roofing Limited, and is valid until further notice, subject to the Conditions of Certification.

#### Conditions of Certification

1. This Certificate relates only to the product as described herein.
2. The Certificate Holder:
  - 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.
3. The product and the manufacture are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ.
4. This Certificate must be read, considered and used in full together with the technical literature.
5. BRANZ makes no representation 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.
6. Any reference in this Certificate to any other publication shall be read as a reference to the version of the publication specified in this Certificate.
7. This Certificate does not address any Legislation, Regulations, Codes or Standards, not specifically named herein.

For BRANZ



S J Dickinson



M E Reed

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*Pre-Application Inspection*



*Application of Decragard Roof Coating System*