

Standard Specification for the application of Keim Granital to exterior walls and Keim Ecosil to interior walls for Straw Bale construction

Project:
Specification: P2514
Date: April 2020
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1.0 PREAMBLE:

Keim Granital is an environmentally friendly silicate based reactive coating produced from inorganic mineral materials. It has been developed for use on all mineral surfaces such as concrete, brickwork, stone, plaster and masonry.

When applied to a mineral matrix, the silicate binder penetrates the surface and forms a homogenous silicate matrix with a crystalline structure similar in nature to quartz.

The requirement in this specification is for a natural mineral silicate and breathable coating system with zero VOC content. This makes the coating perfectly suitable for the requirements of Straw bale construction.

The principle advantage of such a system, is the longevity, natural appearance and breathability of the coating system.

The system would provide a 10 year Film Integrity warranty system.

2.0 SURFACE PREPARATION:

Plaster Walls:

2.1 Extent of works:

All identified exterior plaster and internal plaster walls.

2.2 Surface Preparation:

The plaster is usually an effect or sponge finish, to which **Keim coatings** are to be applied. The plaster must be clean, dust free, and the surface dry at the time of application. Any patching of the plaster that needs to be done, must be carried out prior to application of the Keim coatings and should be done using cement based materials. **Multiplast Finishing Compound** or other suitable products supplied by Equus Industries.

2.3 Surface Pre-treatment: Where required

.1 Cracks/ blemishes and skim coating:

Allow to clean any cracks or blemishes present in the plaster finish and fill with **Multiplast Finishing Compound** or similar approved. Sponge finish at the time of application with a damp sponge.

.2 Water Stains:

Consult Equus for inspection. If these are prevalent, then a spot primer coat of **Equus Chevaprime UM** will block this out.

.3 Sealant:

A suitable sealant for junctions and gap filling, is **Tremco Tremflex 834** – water based.

3.0 KEIM COATING APPLICATION:

Keim Coating System – 3 coats

3.1 First Coat: Keim Dilution

Apply **Keim Dilution** to all plaster surfaces direct from the container by roller and brush application at 10 to 12msq per litre. Allow to dry overnight. Alternative primer: if there are water stains noted on the concrete panels, apply one coat of **Equus Chevaprime UM** at 10msq per litre by roller and brush in lieu of the **Keim Dilution** Primer.

3.2 Second Coat: Keim Granital exterior and Keim Ecosil interior

For the Keim coatings - If using a roller/brush, use a medium nap roller. If using Continental Whitewash brushes, then a cross bush technique gives best results. See Equus for advice on application techniques.

Spread rate for **Keim Granital** is approximately 6 sqm per kg per coat on wood float style plaster.

Spread rate for **Keim Ecosil** is 8msq per litre per coat on wood float style plaster.

Let the second coat dry at least 24 hours and longer in marginal conditions, before application of coat 3.

Ensure there is no forecast rain in the next 6 hours after coating application. Temperatures should be a minimum of 10 ° C at time of installation.

3.3 Third Coat: Keim Granital exterior and Keim Ecosil interior.

Apply as per coat 2.

Spread rate for coat 3 with **Keim Granital** is 6msq per kg.

Spread rate for coat 3 with **Keim Ecosil** is 8msq per litre

4.0 SPECIFICATION NOTES:

4.1 Handling:

The material handles very much like heavy bodied water based paint and should be treated in the same way. Do not work in direct sunlight if you can avoid it. When working on an area, always work to a straight edge corner for change of direction, before stopping work

4.2 Dilution:

Never dilute or thin **Keim Granital** with water. If the material is a little 'heavy,' dilute with a small further amount of **Keim Dilution**.

Once **Dilution** has been added to **Granital**, there is no 'pot-life'. The purpose of adding **Dilution** on site is simply to ensure that you make allowance for the particular coat of the system that you are applying, and the atmospheric conditions at the time.

4.3 Clean up:

Clean your application and mixing equipment by washing up in clean tap water. Let equipment dry before reusing.

4.4 Health and Safety:

Keim Granital is environmentally friendly. However, we would still recommend the use of barrier cream on hands and arms before using the material as this will make it easier to clean splashes off your skin.

4.5 Equus Quality Assurance Program:

Equus Industries Ltd will provide a full Quality Assurance document for the Applicator to observe during the installation process. This will be in the form of a chronological sequence and will require sign off per area by the Applicator and the Equus Technical Representative.

5.0 MAINTENANCE AND WARRANTY:

5.1 Maintenance:

This coating system may be cleaned at any time by low pressure washing with a weak (0.1 %) solution of neutral detergent. Refer to the job specific cleaning document designated for this project. The window cleaning materials are identified in this program. When recoating is required either to maintain long term integrity or for weather resistance, this may be carried out using one or two coats of **Keim Granital**. It may be necessary to periodically clean the surface every 5 to 10 years to maintain **Keim Granital's** pristine appearance. Refer to the maintenance document provided by Equus Industries Ltd.

5.2 Warranty:

Provided work is carried out in accordance with this specification, or with amendments made by Equus Industries Ltd as a result of site investigation before or during the contract, warranties can be made available for terms as below.

Keim Coating System -10 years film Integrity

Such warranties are issued by the Equus Approved Applicators contracted to do the work and are backed by Equus Industries Ltd as to suitability and quality of the materials supplied.

A full Equus QA Program will be incorporated within the contract with inspections and sign offs being a recommended component within the installation process.

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