

CEMGUARDTM

TECHNICAL DATA SHEET: CEMGUARD MINERAL PAINT

ISO EN 13501-1:2018 - A1 CLASSIFICATION FIRE RESISTANT MINERAL PAINT AND PRIMER SYSTEM

CEMGUARD MINERAL PAINT

PRODUCT DESCRIPTION

Cemguard is a fire resistant mineral paint and primer system which has been tested and certified to ISO BS EN13501-1 - A1 Classification of reaction to fire.

Environmentally sustainable and naturally breathable, Cemguard has no added plastics, polymers or harmful inorganic chemicals and is made from a carefully balanced composition of natural minerals.

Cemguard hydrates to form a strong, permanent bond to the substrate, giving a tough and vapour permeable finish. It is highly breathable with an SD Value of less than 0.01. Any excess moisture trapped within the walls is allowed to naturally pass through the paint and escape. This means Cemguard will not peel, flake or blister.

Cemguard is safe for users and the environment, with zero Volatile Organic Compounds (VOC's), tested according to IS 15489: 2004. It contains no heavy metals or hazardous substances such as formaldehyde, phenolic compounds and benzene.

Cemguard has a high PH which is resistant to algae and fungal attack, colours are permanent and UV resistant.

Cemguard is durable on a wide range of materials, including pre-cast and in-situ concrete, GRC, concrete blocks, cement render, cement-lime renders and natural stone. It can also be used on plasterboard and cement fibre boards.

PRODUCT FEATURES

- Fire resistant
- Permanent/non-flaking coating
- High vapour permeability/breathability
- Super matt finish
- Zero polymer content
- Usable on a wide range of masonry surfaces
- Can be used internally as well as externally
- Resists frost and water related damage
- Can fill rough and open textures
- Easy mixing and application
- UV resistant
- Ideal for coastal and marine environments
- Safe to use, non-toxic and solvent free with no VOC's

INSTRUCTIONS FOR GENERAL USE

APPLICATION OF PRIMER COAT

TO MEET FIRE CERTIFICATION REQUIREMENTS ALL SURFACES MUST BE PRIMED WITH CEMGUARD SURFACE PRIMER PRIOR TO THE APPLICATION OF THE PAINT.

Confirm surface is free of all weak and loose deposits and contamination such as dust, dirt, moss, lichen, grease, oil, sealer and anything that could affect the coating application.

Confirm ambient temperatures will remain within 4°C to 30°C during any application. Avoid overnight freezing temperatures.

Primer must be diluted 50:50 with clean water. One coat of primer must then be applied to all surfaces using a brush or roller.

Allow a minimum of 8 hours for the primer coat to dry before the application of the paint.

MIXING THE PAINT

Mix the paint by volume using equal quantities of water and powder, for example one cup of water to one cup of powder.

Gradually add the paint powder to the clean water whilst thoroughly mixing with a low speed powered mixing paddle.

Avoid adding additional water to powder.

Continue mixing ensuring all powder had been thoroughly incorporated. If a thicker mix is desired add more powder at this stage and mix thoroughly. Let the mix stand for 2 minutes and then remix for 30 seconds.

Once mixed, Cemguard should be used within 2 hours. During use some settlement may occur. Stir if required, remembering that the paint will naturally thicken over time. Do not add more water to the mix as this may affect the curing process.

CONSUMPTION

Consumption will depend on the porosity/texture of the surface and the chosen application method. The following table is illustrative of the application of one coat of Cemguard using 1KG, 5KG and 10KG of powder on a smooth rendered surface.

| | | | |
|----------|--------------------|----------------------|---------------------|
| POWDER | 1 kg (0.7ltr) | 5 kg (3.5ltr) | 10 kg (7ltr) |
| WATER | 0.7ltr (700ml) | 3.5 litres | 7 litres |
| MIX | 1.4 litres | 7.0 litres | 14 litres |
| COVERAGE | 5-6 m ² | 25-30 m ² | 50-60m ² |

PAINT APPLICATION

A minimum of 2 coats of the paint must be applied.

To meet fire certification requirements, each coat must have a minimum application rate of 202gm² of liquid paint this will ensure a dry film thickness of 50-80 microns.

Confirm ambient temperatures will remain within 4°C to 30°C during any application. Strictly avoid overnight freezing temperatures, heavy or persistent rain/snow, this could result in a failure of the paint. Cover/protect the affected area if adverse weather conditions are expected.

If the substrate is very porous or dry, mist spray the surface with water before and between coats.

Apply first coat of paint evenly to the surface using an HVLP or compressor based paint spraying system. These are the recommended methods of application, giving the smoothest finish and the most consistent thickness of paint.

If brush application is necessary it is essential to ensure the correct thickness of paint is applied evenly over the whole surface.

Allow 6-8 hours between coats under normal circumstances. **A longer curing time may be necessary in cold and damp conditions.**

Apply a second coat of the paint and allow to cure.

Cemguard takes a number of days to cure. During this process the paint may seem soft/dusty. This is completely natural and the paint will reach full hardness after around 7 Days. The paint should be fully cured after 28 days.

Note: After application some initial colour variation may be visible. This is expected and will even out as the paint cures and hydrates. This effect can also be apparent when the paint has been applied to surfaces which have a high moisture content.

PROCEDURE FOR HOT WEATHER AND POROUS SURFACES

Additional information for hot weather or application onto porous surfaces such as lime render and cobb.

Prepare the Cemguard mix ready for use. Thoroughly saturate the surface with water and immediately commence painting. If rapid drying is apparent after 1 hour, mist the coated surface with water, this will aid the curing process. Repeat this process for the second coat of paint.

For application advice email sales@npc-ltd.co.uk or call us on 01665 494034.

TECHNICAL DATA

| APPEARANCE | OBSERVATION |
|------------|---------------------|
| Form | Fine Powder |
| Colour | White/Colour Choice |
| Smell | Slight Citrus |

| MATERIAL PROPERTIES | VALUE |
|--|--|
| Hydration/curing time | Determined at 28 days (Typical from tests) |
| Water Vapour Permeability | High (>150) - SD Value <0.01 |
| Cube strength (28 days) | 35.5 Mpa (Nmm ²) |
| Pull off strength on 25 N/mm ² concrete substrate | 2.3 MPa (Nmm ²) (concrete failure) |
| Hardness (Mohs Scale @ 28days) | 5 |
| Sorptivity | 0.12 mm/min ^{-0.5} |
| Fire Performance | A1 Classification as EN 13501-1 2018 |

| PHYSICAL DATA | VALUE |
|---------------------------|------------------------|
| Bulk density (Powder) | 1295 kg/m ³ |
| pH (1:1 powder:water) | 10-11 |
| Melting point | Not Applicable |
| Boiling point | >1000 0C |
| Decomposition temperature | Not Applicable |
| Flash point | Not Applicable |
| Explosive properties: | Not Applicable |

PACKAGING

Cemguard is supplied in 10kg re-sealable buckets.

Cemguard Surface Primer is supplied in 5 Litre containers.

STORAGE & SHELF LIFE

Store in dry location in original bag/bucket at 5⁰C-30⁰C temperature. Do not stack bags more than 5 high.

PERFORMANCE

When correctly applied on an appropriate, defect free surface, the coating can be expected to last in excess of 20 years.

CHEMICAL PROPERTIES

Blended minerals and portland white cement.

HEALTH & SAFETY

Cemguard is a non-hazardous material. A Material Safety Data Sheet is available on request.

| | |
|-------------------------|--|
| RESPIRATORY PROTECTION: | Wear a dust mask. |
| HAND PROTECTION: | Wear protective gloves. |
| SKIN PROTECTION: | Cover arms and legs. |
| EYE PROTECTION: | Wear suitable safety glasses |
| IF SWALLOWED: | Do not induce vomiting. Seek medical advice if ingested or if an allergic reaction occurs. |

KEEP OUT OF THE REACH OF CHILDREN & ANIMALS

PRODUCT ASSISTANCE

Contact Northern Paints and Coatings Ltd

email: sales@snowcempaints.co.uk

Phone: +44(0)1665 494034

www.npc-ltd.co.uk

Important: The content of this documentation is based on our experience of the product. The company guarantees the quality of its products, but expressly declines any liability in the event of failure by the user to comply with the recommendations and conditions of use of said products, notably but not exclusively in the event of incorrect application including non-use of the company's 'Approved Application Tools', application by non-competent personnel, use of products not compatible with the company's products or bad weather conditions. For further information, refer to the material safety data sheet.



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