

CMI[®] RENDER

Updated Dec'25



DESCRIPTION

CMI[®] Render is an environmental friendly, high quality polymer modified cement-sand plaster / render for application on block walls, brick walls, and concrete substrates at internal general area. It is specifically recommended for use as a fine textured sponge finishing for external walls and ceiling to provide an aesthetically pleasant and level wall surface. **CMI[®] Render** require key coats or a layer of primer for application onto external wall or smooth concrete surfaces. It is certified with Singapore Green Label by Singapore Environment Council.

CMI[®] Render is available for thin, medium, and thick application.

USES

- Plaster / Render for application onto block walls, brick walls and concrete substrates.
- Can also be used for levelling and patching works for internal and external application.
- IT SHOULD NOT BE USE ON PAINTED SURFACES.

ADVANTAGES

- Premixed with good and consistent quality.
- User friendly, just need to mix with water and apply.
- Pre-packed, complementing IBS construction to achieve good construction quality and less labour intensive.
- Good workability and adhesion with good shrinkage cracks control.
- Eco-friendly cementitious plaster / render, certified with Singapore Green Label by Singapore Environment Council.

Product Type	Product Code	Pack Size	Finishing	Color	Substrate
Plaster / Render	Thin Bed (081)	25kg, 40kg	Semi-smooth texture	Grey	Block / Concrete / Brick
	Medium Bed (082)	40kg	Semi-coarse texture		
	Thick Bed (083)	40kg	Coarse texture		

Technical Data

CMI [®] Render	Thin Bed (081)	Medium Bed (082)	Thick Bed (083)
Appearance	Grey Powder	Grey Powder	Grey Powder
Bond Strength @ 28 days	≥ 0.5 N/mm ²	≥ 0.5 N/mm ²	≥ 0.5 N/mm ²
Compressive Strength	≥ 6.0 N/mm ²	≥ 6.0 N/mm ²	≥ 6.0 N/mm ²
Flexural Strength	> 3.0 N/mm ²	> 3.0 N/mm ²	> 3.0 N/mm ²
Wet Density	1800 – 1900 kg/m ³	1800 – 1900 kg/m ³	1800 – 1900 kg/m ³
Dry Density	1600 – 1700 kg/m ³	1650 – 1750 kg/m ³	1700 – 1800 kg/m ³
Workable Life (Method A)	> 8 hours	> 8 hours	> 8 hours
Water Retentivity	≥ 99%	≥ 99%	≥ 99%

CMI® Render	Thin Bed (081)	Medium Bed (082)	Thick Bed (083)
Air Content	10 – 15%	10 – 15%	10 – 15%
Max. Aggregate Size	1mm	1.5mm	5mm
Recommended Thickness	3 – 6mm per coat	5 – 10mm per coat	8 - 15mm per coat
Mixing Ratio	Approx. 17% water on dry material	Approx. 16% water on dry material	Approx. 15% water on dry material

Recommended Total Coating & Construction System
INTERIOR WALL SYSTEM
(I) Block Wall / Concrete Wall

TYPES	PRODUCT NAME	NOMINAL THICKNESS
Surface enhancement* <i>- Optional</i>	: CMI® Plastering Bonding Agent 370	: 1 coat
Plaster / Render*	: CMI® Render 081 / 082 / 083	: 3 – 15mm
Skim Coat (Base Coat)	: CMI® Base Mortar 781 / 381	: 2-3mm
Skim Coat (Top Coat)	: CMI® Wallskim 281 / 681	: 1-2mm
Paint (Sealer/Primer)	: Nippon Paint Interior Sealer Range	: 1 coat
Paint (Finishing Coat)	: Nippon Paint Interior Finishing Range	: 2 coats

*Recommended for wall alignment that require thick undercoat build-up.

Note:

- Kindly refer to the respective technical datasheet for more information.
- For areas not specified, please consult **Nippon Paint / CMI®** Technical Representatives for more information.

Surface Preparation

All surfaces must be sound, clean and free from dirt, dust, grease and other contaminants which will inhibit proper bonding. Damp the substrate for dry or high absorbing substrates prior to application of **CMI® Render**. For application on smooth concrete substrates, a primer coat is recommended for roughening of the receiving surface prior to plastering.

Mixing

CMI® Render	25kg Bag	40 kg Bag
• Thin Bed (081)	4.0 – 4.5 litres of clean water	6.4 – 6.8 litres of clean water
• Medium Bed (082)	-	6.0 – 6.5 litres of clean water
• Thick Bed (083)	-	6.2 – 6.6 litres of clean water

Pour the powder into a pail of clean water according to mixing ratio as per Table 2. (Do not add cement or lime into the mixture). Mix thoroughly for 3-5 minutes using mechanical mixer until the homogeneous paste is achieved and lump-free. Re-mix if the mixture is left unattended for more than 30 minutes.

Application

Apply the mixture onto receiving surface using steel trowel. If more than one coat is required due to surface flatness, allow the underlying coat to achieve partial cure or touch dry before applying the subsequent coat.

For external walls, it can be sponged in circular motion to achieve fine textured finishing after the final coat partially set. It is recommended to cure with water spray for the first 2 days after application in hot and dry conditions to allow for proper curing.

Note: For smooth concrete surface, it is recommended to apply a key coat consisting of **CMI® Plaster Bonding Agent 370** or **CMI® MultiFix 188** mix with **CMI® Mortar Bond 330** for thick bed application (>10mm thickness).

Coverage

CMI® Render	Coverage
• Thin Bed (081)	Approx. 1.5 kg/m ² / mm
• Medium Bed (082)	Approx. 1.6 kg/m ² / mm
• Thick Bed (083)	Approx. 1.8 kg/m ² / mm

Cleaning

Clean up equipment with water immediately after use.

Safety Precautions

- Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid inhaling dust during handling or mixing of products.
- Use only in well-ventilated area.
- In case of inadequate ventilation wear respiratory protection. In case inhaled, remove patient to fresh air and allow to rest.
- In case swallowed, do not induce vomiting. Rinse mouth clear with water and drink two glasses of water.
- In case contact with eye, immediately rinse with plenty of water and seek medical advice.
- Remove splashes from skin by using soap or water.
- Products must always be stored in a cool, dry and well-ventilated area.
- When transporting products, care must be taken. Always keep products dry and avoid generating or accumulating dusts during handling.
- Disposal of product should always comply with local and national regulations.

Shelf Life & Storage

Six (6) months when stored in cool and dry condition.

Certification

1. Green Label Singapore 022-119-2644 by Singapore Environment Council

Testing Standard

1. BN EN 998-1:2016 Specification for mortar for masonry. Part 1: Rendering and plastering mortar by Sirim QAS
2. BS EN 1015-7: 1999, Method of test for mortar for masonry – Part 7: Determination of air content of fresh mortar by Sirim QAS
3. BS EN 1015-9: 1999, Methods of test for masonry – Part 9: Determination of workable life and correction time of fresh mortar by Sirim QAS
4. BS EN 1015-3: 1999, Methods of test for mortar for masonry – Part 3: Determination of consistence of fresh mortar (by flow table) by Sirim QAS
5. BS EN 1015-10: 1999, Methods of test for mortar for masonry – Part 10: Determination of dry bulk density of hardened mortar by Sirim QAS
6. BS EN 1015-11: 1999, Methods of test for mortar for masonry – Part 11: Determination of flexural and compressive strength of hardened mortar by Sirim QAS
7. BS EN 1015-12: 2016, Methods of test for mortar for masonry – Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrates by Sirim QAS
8. BS EN 1015-18: 2002, Methods of test for mortar for masonry – Part 18: Determination of water absorption coefficient due to capillary action of hardened mortar by Sirim QAS
9. BS 4551: 2005+A2: 2013, Mortar. Methods of test for mortar and screed. Chemical analysis and physical testing. Clause 6.2: Determination of consistence retentivity and water retentivity by Sirim QAS.

Note

The information provided on this datasheet is not intended to be complete and is provided as general advice only. It is the user's responsibility to ensure that the product is suitable for its intended purpose. As we have no control over the treatment of the product, the standard of surface preparation, or other factors, we are not responsible for any damages or injury, including but not limited to special or consequential damages which may result from the use of our products, which includes any damages or injury caused by any failure of performance. The information contained in this datasheet may be modified by us from time to time, without any notice arising from our continuous product development activities.