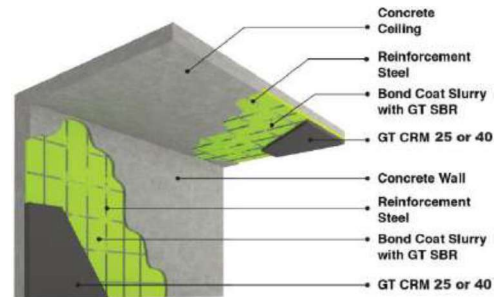


PRODUCT DATA SHEET

GT CRM 40



(Class 40 Polymerized Cementitious Repair Mortar)

A class 40 polymer-modified cementitious mortar, offering high strength and medium weight properties, specifically engineered for concrete patching and concrete repairing

Description

- GT CRM 40 is a class 40 polymerized cementitious mortar engineered for concrete patching & repairing
- GT CRM 40 combines medium weight properties with enhanced adhesion and compressive strength
- GT CRM 40 can be applied in one layer with a thickness of 40mm for both vertical and overhead surfaces.

Uses

- Concrete patching, particularly effective for overhead areas and aged concrete
- Repair of honeycomb and spalling
- Restore concrete damage and maintain reinforcement protection
- Suitable for both interior & exterior applications

Characteristics & Benefits

- Single-component formulation with consistent mixing ratios
- Easy to apply by protective gloves or trowel application
- Applicable for single-layer applications up to 40mm in thickness
- Easy application for overhead areas
- High polymer content to enhance waterproofing, corrosion protection and cohesive properties
- Minimize shrinkage cracking
- Chloride free

Complied Standards

- Hong Kong: HKHA MTS Specification Part D Cl. 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.6, 2.1.7 and 2.1.14
- Hong Kong: TM1 to TM6 in HKHA GS2013 Section 10 Table 10A and Polymer Content in Table 10B
- Hong Kong: Specification in Term Contracts for Building Works of ASD
- British Standard: BS 6319 Part 2, 3, 6 and 7

Technical Data

Chemical Component	Portland cement, medium weight filler, reinforcement fibre, fine sand, polymer powder and other chemical additives	
Colour	Grey	
Packaging	25KG	
Maximum Aggregate Size	2.0mm	
Water Demand	For gloved hand application: 3.75 L/25 KG bag (Approx. 15%)	For trowelling mode: 4.75 L/25 KG bag (Approx. 19%)
Density	Approx. 1.9 KG/L (wet) for 19% water demand	
Pot Life	Approx. 1 hour	
Thickness	10–40mm per layer	
Coverage	Approx. 1.5–1.6 KG/m ² /mm	
Theoretical Consumption	Approx. 15–16 KG/m ² for 10 mm thickness Approx. 1.6–1.7 m ³ / 25 KG bag for 10 mm thickness	
Storage Life	12 months (Product must kept in a dry environment)	

Physical Properties

Test Method	Characteristics	Age at Test	HKHA Requirement	GT CRM 40 Performance Data
TM1	Compressive Strength	7 days		~ 40 MPa
TM1	Compressive Strength	28 days	36–60 MPa	~ 50 MPa
TM2	Tensile Strength	7 days	> 2.0 MPa	~ 3.5 MPa
TM2	Tensile Strength	28 days		~4.5 MPa
TM3	Elastic Modulus	28 days	15–25 kN/mm ²	~ 16 kN/mm ²
TM4	Bond Strength	7 days	> 2.0 MPa	~ 3.0 MPa
TM4	Bond Strength	28 days		~ 3.5 MPa
TM5	Cracking in Coutinho Ring	1–28 days	No cracks observed	No cracks observed
TM6	Figg Air Permeability	35 days	> 200 seconds	~ 3000 seconds
BS 6319 Part 3	Flexural Strength	7 days		~ 6.5 MPa
BS 6319 Part 3	Flexural Strength	28 days		~ 9.0 MPa
HD002	Polymer Content		> 5 % by weight of cement	> 5 % by weight of cement

Unless specified, all technical data represent average values and are based on 28 days curing time.

The provided physical data are derived from laboratory tests. Actual in situ material performance on-site may vary due to environmental and workmanship conditions beyond the manufacturer's control.

Substrate Preparation

Hack off all loose, defective and honey combed concrete until sound concrete substrate is exposed. For any exposed reinforcement, hack off the concrete behind the reinforcement to leave a gap of between 10mm and 20mm.

Ensure the substrate is thoroughly cleaned, structurally sound and accurately level to meet specified tolerances. It should be free from any form of contamination, loose particles, grease, lacquer, plastics or remnants of foreign materials.

For new casted concrete, the substrates must undergo proper curing before the repair process. Additionally, any protrusions such as wood peels, nails, excess mortar or joints with tolerances exceeding the repair thickness should be addressed.

Ensure any exposed reinforcement is thoroughly cleaned, removing all rust completely.

Saw-cut the edges of the repair area to a depth of 10mm to avoid feather edges, ensuring that the repair extends at least 10mm below the concrete surface.

Mixing & Application

Prepare the slurry coat by mixing GT SBR with Ordinary Portland Cement by volume (1:1.5 ratio), using an electric mixer to stir the mixture thoroughly until a homogeneous slurry coat is achieved. (Approx. 3-5 minutes)

Apply a single layer of the slurry coat using a brush on the exposed steel surface once the reinforcement is cleaned. Allow the slurry coat to dry.

Wet down the substrate with clean water to achieve saturation and ensure any excess water to drain away before applying GT CRM 40 mortar.

Apply another layer of slurry coat with a brush on both the concrete substrates and exposed steel surface when applying GT CRM 40.

Mix thoroughly by adding a 25KG bag of GT CRM 40 dry powder to 3.75–4.75 liters (Approx. 15–19%) of clean water using an electric mixer. Adjust the water demand based on the desired consistency, with 3.75 liters water (15%) recommended for gloved hands application and 4.75 liters water (19%) for trowel application. The mixing time should be around 3–5 minutes.

Apply GT CRM 40 while the slurry coat is still wet and tacky.

Strictly avoid the slurry coat dries before patch repairing. Re-apply slurry coat if dried.

It is recommended to use GT CRM 40 within 1 hour with a covered pot.

When applying GT CRM 40 to surfaces, use a trowel or gloved hand to compact the mortar onto the primed substrate. Ensure the exposed reinforcement is embedded in the repair mortar and the minimum cover to the reinforcement is at least 10mm.

Build up the repair mortar to the required thickness. Where more than one coat of repair mortar is to be applied, the former coat shall be initially set and slurry coat shall be applied to the former coat before applying new coat.

Achieve the required surface texture using either a steel, plastic or wood float. Ensure not to overwork the surface during finishing.

Please refer GT CRM 40's method statement for comprehensive procedures in detail.

Curing

It is recommended to cure the surface with GT Curing Compound immediately after finishing off the surface.

Health & Safety

It is recommended to use a NOISH-approved or equivalent particulate face mask when mixing the material.

The material composition contains cement, which may cause an allergic reaction.

Exercise caution, as the material could cause irritation to the eyes and skin. In the event of eye contact, rinse immediately with ample water and seek medical attention. Should skin contact occur, wash thoroughly with soap and water.

Keep the product out of reach of children.

Refer to the Material Safety Data Sheet (MSDS) for comprehensive information on health, safety and proper handling procedures.

Cleaning & Disposal of Waste

For cured material, mechanical removal is suitable, while uncured material can be washed away with water.

Ensure proper disposal of waste in accordance with applicable legislation.

Legal Disclaimers

Note: The details and physical data provided in this catalog are based on our knowledge using standard testing methods and controlled environments. Results may differ under varying weather/site conditions, workmanship or substrates. As these factors are beyond our control, we cannot be held responsible for any faults or consequences that may arise. We recommend conducting comprehensive tests before the final application. Unless explicitly stated, all technical data represent average values with a curing time of 28 days. We retain the right to update or modify the contents based on new discoveries during research and development.