HG 202
NON-METALLIC FLOOR HARDENER

DESCRIPTION

HG 202 is a non-metallic surface hardening compound. It consists of specially-graded, local hard quartz aggregate, imported hardwearing mineral aggregate, Portland cement and other proprietary components blended to powder form of which is ready to be used on site. The uses of high performance and highly workable admixture produce a material which is easy to trowel into the surface of fresh and wet concrete.

USES

HG 202 provides abrasion-resistant and non-porous surface to concrete floors by the "dry shake" method of which ensures the hard wearing surface bonds monolithically to the base concrete.

It is ideally suited for all industrial areas subject to the heaviest traffic; for example: loading bays, trucking lanes, car parks, workshops, machine shops, ramps, vehicle stands, and all sorts of factory floors.

COLOURS

HG 202 is available in various colours.

The common colours are Natural Cement Grey, Brick Red and Super Green.

ADVANTAGES

- High compressive strength surface of 80 N/mm2
- Provides a hard, abrasion-resistant surface
- Forms monolithic bond with base concrete
- Available in a range of colours
- Tested to Mohr's scale Hardness of 8
- Resistant to oils and grease penetration
- Non-dusting, anti-slip and antirust
- Easy and economical to apply
- Improves the abrasion resistance of concrete by up to 400%

PROPERTIES

Abrasion Resistance

HG 202 has been tested by SIRIM using Taber Model 503 Abraser (Para 3.5). The results showed that **HG 202** improves the abrasion resistant of concrete by up to 400% compare to normal screed.

Compressive Strength

At water content equivalent to those obtained in practical applications, the typical 28 days compressive strength of **HG 202** cubes is at least 80 N/mm^2.

INSTRUCTION FOR USE

Base Concrete

The base concrete should have a minimum cement content of 300 kg/m^3. The concrete mix should be designed to minimize segregation and bleeding. Free water to cement ratios of less than 0.55 are required. The concrete should have slump of between 75 and 100mm. The base concrete should be laid and compact in accordance with good concrete practice. Accurate finished profiles and minimum laitance build-up should be ensured. Particular attention should be paid to bay edges and corners recommended when water to cement ratios of less than 0.55 have been used.

Standard Application

HG 202 is applied at different rates per m^2 to provide floor surface suitable for different types of industrial use.

Intended traffic use	Application rate in kg/m^2
Heavy	8.0
Moderate	6.0
Light	4.0

It is recommended that the floor be marked off into bays of known areas. Sufficient material should then be laid out to meet the required spread rates. Application of **HG 202** can begin when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3mm. Any bleeding water should be allowed to evaporate.

TYPE
INDUSTRIAL FLOORING

ADVANTAGES
ABRASION RESISTANT
HIGH TENSILE

COVERAGE (PER COAT)
4–8 kg/m^2

COATINGS
1 coat (min)

COMPONENT
1 PART

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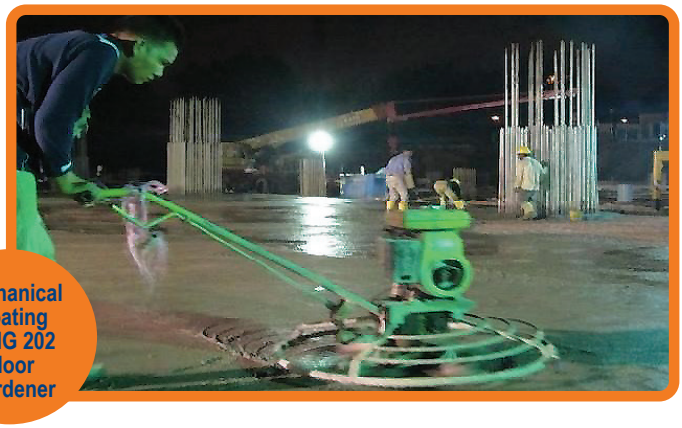
1. Monolithic Casting

A The first application is made by using 1/2 to 2/3 of the total material required. **HG 202** is evenly broadcast onto the concrete surface. When the material becomes uniformly dark through the absorption of moisture from the concrete, first application can be floated mechanically.

Application of HG 202 Floor Hardener

B Immediately after mechanically floating, the remaining **HG 202** is evenly broadcast over the surface. Again moisture is absorbed and the surface can be mechanically floated in the same way as before. Attention must be paid that the surface is not over worked so that damage will not be caused. In this method of open casting, the area is subjected to weather changes. The finish floor level shall have isolated ponding of water due to the fact that perfect levelling to falls is not achievable. However, the finished level should be able to achieve straight edge of 3m at ± 10mm tolerance



Mechanical Floating of HG 202 Floor Hardener

2. Granolithic Casting

Prior to the sprinkling of floor hardener materials, a minimum 50 mm thick of G25 chipping concrete or cement and sand (1 : 3) screed shall be laid to receive it. Reinforcement shall be introduced to prevent cracks. The sprinkling of the **HG 202** is done according to items 1 (a) & (b) as above. This is commonly done to RC ramps with 50mm recess in the slab. The finished floor levels from this method of construction shall give rise to a flatter floor with metal straight edge measured level at 1.2m with a tolerance of application at 5mm. This is normally applicable to internal floor slab.

PRECAUTIONS

1. Timing Of Application

Timing of application of the **HG 202** is important. Excess resulting water will be absorbed and the floor surface will have lower strength and subject to dusting.

Also the dense aggregate of **HG 202** could sink and be lost from the surface.

If application is too late, insufficient moisture will be available to completely hydrate the **HG 202**.

Crazing and pitting of surface are likely to result.

BRC Reinforcement

Formation of 'O' Ring Pattern on Ramps

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PRECAUTIONS

2. Bay Edges

Where bay edges are likely to suffer particular heavy impact or wear, these areas can be given additional protection with plywoods. Immediately after the base concrete is leveled, sprinkle **HG 202** on a strip of 100 -150 mm wide along the bay edges. Steel trowel and press it into the surface. Areas where saw-cut transverse control joints are located can also be pre-treated in this manner.

3. Construction Joint

The finished concrete at edges shall be removed with steel trowel to avoid sharp ends or fish-tailed edges to facilitate the flat formation at joints.

4. Curing

Curing compounds which conform to ASTM and DEO specification can be used. However, in indoor applications where curing sets slower, alternative approved method of curing such as polythene sheeting or water curing are acceptable.

STORAGE

If “keep” or “store” in the original, undamaged packaging, the shelf life of **HG 202** shall be 6 months.

PACKAGING

25 kg per bag.

5. Ready To Use

HG 202 is supplied as ready to use on site. Never add cement or aggregate to **HG 202**. However, a minimum amount of cement sprinkled for touching-up of the surface is advisable even upon full curing.

6. Coloured Floors

When coloured floor is required, it is strongly recommended that a job-site sample is laid.

7. Surface Treatments

Because of the high density, low porosity surface finishing of floor, treatments are not recommended. However, if the surface dusting due to the faults in timing of application, two layers of anti-dust agent can be introduced. Usually 2 coats of DPS 7 is needed.

HEALTH AND SAFETY

HG 202 contains Portland cement and is therefore alkaline when in contact with water. Avoid prolonged contact with skin. Any eye contamination should be washed immediately with plenty of clean water and medical advice sought. **HG 202** is non-flammable.

‘O’ Ring Patterns on Ramp via Granolithic Casting.

Legal Notes:
‘Statements made in this bulletin are for the assistance of our customers. They are based on our experience and judgment but must not be regarded as amounting to a legal warranty or as involving any liability on our part. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of this product must test the product’s suitability for the intended application and purpose. CHEMIND reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. Users may always refer to the most recent issue of our Product Data Sheet for the products concerned, copies of which will be supplied upon request.’

Made In Malaysia

SCOPE OF REGISTRATION AND STANDARDS

Manufacture of Waterproofing materials. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard. SIRIM certification is available for selected products upon request, subject to applicable testing and certification requirements.

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