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Nafufill GP 50 (Formerly known as ReCon GP)
Cementitious Structural Grade Repair Mortar

Description

Nafufill GP 50 is a ready to use single component polymer modified repair mortar containing fibres and silica fume. It contains specially selected materials to provide a fine, smooth repaired surface.

Advantages

- Non-shrink mortar
- Fibres help in reducing micro cracking of repaired surfaces
- User friendly, excellent workability
- Non-toxic and non-corrosive
- Extremely low permeability
- Excellent resistance to aggressive environmental elements
- Dense surface helps in resisting carbon dioxide penetration
- Excellent adhesion and mechanical strength
- Chloride free, safe to use in repairs of reinforced concrete surfaces

Application

Areas of application

Nafufill GP 50 is a fine, ready to use repair mortar for repairing load bearing structures, precast concrete elements, etc. It can also be used to repair honeycombs, surface defects, blowholes, tie rod holes and minor damages. It can be used in vertical, overhead and floor patch repair situations with ease. It can also be used as dry pack mortar of various consistencies by adjusting the water content of the mix.

Surface Preparation

The area to be repaired should be clearly marked and saw cut for at least 5 mm depth to avoid feather edges. The surface should be clean and sound. Remove dirt, dust, oil, grease, laitance, sealers, release agents, curing compounds and paints using suitable mechanical means. Exposed rebar should be cleaned and protected with **ReCon Zinc or ReCon ST.** The concrete should be saturated with water prior to application.

Priming

Priming is generally not required. Surfaces to receive **Nafufill GP 50** should be well saturated with water prior to application and excess water has to be removed before application of **Nafufill GP 50**. In some critical cases appropriate bonding agent from FitBond range can be used.

Application

Nafufill GP 50 can be applied by hand or wet spray. It should be firmly placed to ensure proper bonding to the prepared surface. Wooden float or plastic float may be used for levelling and initial finishing. Final finish can be carried out just before the initial set of material using a steel trowel. Single layer application can be carried out to a maximum thickness of 40 mm. Thicker repairs may be achieved by working in layers.

Application Thickness

Nafufill GP 50 can be applied at a thickness of 5 mm up to 40 mm in a single layer.

- 5 mm to 40 mm in a single layer for horizontal surface
- 5 mm to 20 mm in a single layer for vertical surface
- 5 mm to 15 mm in a single layer for overhead surface

Curing

To prevent rapid surface drying and crazing, repair mortar should be cured by spreading wet burlap or moist hessian cloth over the surface. Repaired area can also be cured using suitable curing compound from **JetCure** range.

Limitations

At temperatures above 35°C, it is recommended that measures are taken to reduce material placing temperatures. These include: storing materials and equipments under cool shade and away from direct sunlight. Avoid installation during the hottest part of the day. Ensure that water temperature is kept below 20°C.

MC-Bauchemie Manufacturing Plc.
Addis Abeba, Ethiopia
www.mc-bauchemie.com
Tel: +251 11 5544334
Tel: +251 11 5544557/8
Email: ethiopia@mc-bauchemie.com

Mixing

Nafufill GP 50 should be mixed with water using a heavy duty slow speed drill machine fitted with a paddle. Amount of water to be added is 4 ltrs per 25 kg bag. Mix for at least 3 minutes to ensure a homogeneous lump free consistency. Do not try to remix the product after it loses its workability by adding more water.

Yield	14 ltr/25 kg bag
Coverage	1 m2/25 kg bag at 14 mm thickness

Typical Properties at 25°C

Property	Test Method	Value
Component	-	Single
Form	-	Powder
Colour	-	Grey
Fresh Wet Density	BSEN 12350-6	2.05 kg/ltr +/- 0.05
Working Time	-	20 mins
Compressive Strength	ASTM C109	55 N/mm² at 28 days
Tensile Strength	BS 6319-7	5 N/mm² at 28 days
Bond Strength	ASTM D4541	> 1.5 N/mm2 at 28 days
Flexural Strength	BS 6319-3	7 N/mm² at 28 days
Water Absorption (ISAT)	BS 1881-208	< 0.01 ml/m²/sec at 2 hrs
Water Permeability	BSEN 12390-8	< 10mm
Rapid Chloride Permeability	ASTM C1202	< 650 coulombs
Drying Shrinkage	ASTM C157	< 500 microstrain at 28 days

General Information

Package Size	25 kg bag
Shelf Life	12 months from date of manufacture when stored under warehouse conditions in original unopened packing.Extreme temperature/humidity may reduce shelf life.
Cleaning	Clean all equipments and tools with water immediately after use.Hardened material can be removed mechanically.

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Health and Safety

PPE's	Gloves, goggles and suitable mask must be worn.
Precaution	Contact with skin, eyes, etc. must be avoided. If swallowed seek medical attention immediately.
Hazard	Regarded as non-hazardous for transportation.
Disposal	Do not reuse containers. To be disposed off as per local rules and regulations.
Additional Information	Refer MSDS. (Available on request.)

Technical Support	MC Technical Services are available on request for on site support to assist in the correct use of its products.