



Nafufill® GTS-IN

One-Component, Polymer-Modified SPCC Concrete Replacement for Repair in areas relevant and irrelevant for structural integrity

Product Properties

- Application by dry spraying technique
- Low shrinkage, low E-modulus, Chloride-Proof
- High Carbonation resistance
- Resistance to elevated temperatures, frost and de-icing salt
- Statically countable
- Non-Flammable, Building Material Class A1 according to EN 13501-1
- Class R4 according to EN 1504 part 3

Areas of Application

- Concrete replacement for the repair by SPCC-areas relevant and irrelevant for structural integrity, vertical and overhead application
- Suitable for the spray application in Tunnels, Industrial buildings, Dock yard, bridges, etc.
- Suitable exposure classes acc to DIN 1045-2/EN 206-1/EN-1992-1: XO, XC1-XC4, XD1-XD3, XS1-XS3, XF1-XF4, XA1-XA3
- Repair and anode embedding mortar according to EN 12696 for repair principle "Cathodic corrosion Protection of steel in Concrete"
- Classified according to EN 1504 part 3 for principle 3, 4 and 7, procedure 3.3, 4.4, 7.1 and 7.2

Application

Substrate Preparation

The repaired surface should be free from any unsound material and should be free from any contaminations. Before application of **Nafufill® GTS-IN** the prepared surface should be in Saturated surface dry condition. See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems" for getting further surface preparation instructions.

Reinforced Steel

The existing corrosion of the reinforcement should be completely removed as per EN ISO 12944. The reinforcing steel should be De-rusted to achieve the degree of blasting SA2. See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems". MC Bauchemie Range Corrosion protection system should be recommended for corrosion protection.

Pre-Wetting

Before **Nafufill® GTS-IN** is applied the substrate must be pre-wetted thoroughly. If the concrete parts are completely dried out, pre-wetting should be no standing water on the surface. When beginning to apply the surface should be slightly damp, but not saturated with water.

Application / Spraying

The water intake of the nozzle mixing machine should be adjusted to create a homogeneous and dust-free spray-mortar. The spray angle between spray-nozzle and ground should be exactly 90° and the distance between ground and nozzle at least 0.5 meters. When spraying behind reinforcements, the angle and distance may be adjusted as necessary.

Nafufill® GTS-IN can be applied in one or more layers. The Interval between individual work steps should be at least 1 hour. The freshly sprayed surface can be left rough as sprayed or levelled with Trowel. It is not allowed to finish **Nafufill® GTS-IN** after it has begun to set. If it is used in the closed areas then special protections should be taken as per the safety Data sheet.

General Information

For Information on equipment technology, compressor, rebound, supportive casting and application conditions, see leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems".

Curing

Nafufill® GTS-IN must be prevented from drying out too rapidly and protected from direct sunlight and wind. Curing generally takes 3 days.



Technical Data for Nafufill® GTS-IN

Characteristic	Unit	Value*	Comments
Grain Size	mm	0 – 3	
Fresh Mortar density	Kg/m ³	2250	
Compressive Strength ASTM C-109 (50mm Cube)	N/mm ²	35 45	After 7 Days After 28 Days
Finishing Time	Minutes	20 - 30	At +20° C
Application Conditions	°C	≥+5 - ≤+35	Air and substrate temperature
Tensile strength	N/mm ²	>1,5	After 28 Days
Coverage	Kg/m ² /mm	2	+rebound
Layer Thickness	mm	10	Minimum layer thickness per work step
	mm	25	Maximum layer thickness per work step
	mm	50	Maximum total layer thickness
	mm	80	Reprofiling of disruptions

*All the technical Values were determined in laboratory, at a temperature of 20° C and 65% relative humidity

Product Characteristics for Nafufill® GTS-IN

Type of Product	Sprayable polymer cement Concrete
Form	Gray Powder
Shelf Life	9 Months from date of Manufacture if stored in Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
Delivery	30 kg sacks
Disposal	Empty packs completely and dispose off carefully to protect our Environment

Safety Advice

Please Take notice of the safety information and advice given on the packaging labels, safety information sheets and General Application Advice.

Note: - The information on this Data Sheet is based on our experiences and correct to the best of our knowledge. It is However, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our Data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are binding if given in written form. The accepted engineering rules must be observed at all times.

Edition: - MC/IND/190512, Some Technical Changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.