

# ombran FG plus

Fast-setting grout for levelling of manhole frames at medium temperatures



## PRODUCT PROPERTIES

- Cement-bound
- One-component
- Very high flowability
- High initial and final strength
- Low shrinkage, slightly swelling
- Very high resistance to freeze and de-icing salt tested in accordance with CDF test method (BAW-leaf-let), resistant to sulphate attack
- Very good adhesion to mineral substrates
- Fulfills requirements according to DIN 19573 (WW-shaft head mortar) and DAfStb-grout guideline

## AREAS OF APPLICATION

- Grout for manhole frame leveling (cylindrical and conical shape)
- Void-free grouting of joints between manhole frame and taper
- Height adjustment / leveling of gully holes or other component frameworks
- Annulus backfilling at shaft-in-shaft systems
- REACH-assessed exposure scenarios: application, periodical water-contact

## APPLICATION ADVICE

**Substrate Preparation and Pre-wetting:** See data sheet “General Application Advice for hydraulic-setting manhole frame grouting mortar”.

**Mixing:** The grout is prepared by using the ready mixed ombran FG plus and water. Pour out the water, scatter the ready-mixed mortar into the water and mix to a uniform, lump-free workable mortar consistency. Depending on temperature a mixing time of approx. 60 – 90 sec has to be observed. The lower the temperature the longer ombran FG plus has to be mixed. Fast running (approx. 500 rpm) double stirrers are suitable for mixing ombran FG plus. Mixing by hand and mixing of partial quantities is not allowed.

**Mixing Ratio:** See the table “Technical data”. Use 4.0 up to 4.25 l of water for each 25 kg bag of ombran FG plus. The consistency might be adjusted by varying the water amount within the mentioned range. Depending on the mixer strong liquidation begins after approx. 30 sec of mixing; therefore the pre-determined mixing ratio is to be observed.

**Application / Installation:** See data sheet “General Application Advice for hydraulic-setting manhole frame grouting mortar”. ombran FG plus is to be applied / installed immediately after mixing. A short curing time (depending on temperature, < 60 sec) supports outgassing of trapped air from the mixing process. In addition the material should be repeatedly be stirred with a trowel to destroy micro bubbles occurring at the surface. To prevent air voids, pour the mortar continuously from one side only. The grout might be encouraged to flow by poking with a wire loop. Mix only as much ombran FG plus as could be applied within the stated processing time. Avoid heavy vibrations and shaking around the job site during application and curing period (temperature-dependent) of ombran FG plus.

**Curing / Subsequent Works:** See data “General Application Advice for hydraulic-setting manhole frame grouting mortar”.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	25 : 4 - 4.25	powder component : water
Working time	minutes		incl. mixing
		approx. 4 - 6	incl. mixing, temperature-dependent
Curing time	minutes	7 - 9	incl. mixing, temperature-dependent
Application conditions	°C	≥ 5 ≤ 25	air, substrate and material temperatures
Consumption	kg/m <sup>2</sup>		depending on job conditions
		approx. 1.8	factory-dried mortar
Gap width	cm	1 - 6	
Maximum grain size	mm	approx. 0.5	
Fresh mortar bulk density	kg/dm <sup>3</sup>	approx. 2.1	
Compressive strength (storage in water)	N/mm <sup>2</sup>		DAfStb guideline for grouts
		1 h	> 10
		24 h	approx. 60
		7 d	approx. 90
		28 d	approx. 100
Flexural strength (storage in water)	N/mm <sup>2</sup>		DAfStb guideline for grouts
		1 h	approx. 3
		24 h	approx. 8
		7 d	approx. 17
		28 d	approx. 18

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

Equipment cleaning agent	water
Colour	grey
Delivery form	25 kg bag
Storage	Can be stored in original sealed packages at temperatures between 5°C and 25°C in dry conditions for at least 6 months.
Packaging disposal	Make sure single-use containers are completely empty.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : ZP1

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300018298]