

# Emckrete 70 F

Hydraulically setting high-performance grouting mortar



## PRODUCT PROPERTIES

- Ready to use - simply mix with water
- High early and final strengths
- High adhesive tensile strength on properly treated substrates
- Impermeable to water, resistant to frost and deicing salts
- Shrink compensated
- High elastic stability (30 N/mm<sup>2</sup> compressive stress, 45°C, 6 h)
- Highly flowable acc. to ASTM C 939-2 and VeBMR-guideline
- Chloride free
- Pumpable
- Non-flammable according to EN 13501 - class A1
- Tested and complies fully with DTp specification for highway works, series 2600, clause 2601 (UK)
- Certified according to EN 1504-6 as anchoring product

## AREAS OF APPLICATION

- Grouting/under grouting mortar of precision machines, power station equipment and machine foundations, which are subjected to high vibrations, for ex. turbines, generators, compressors and engines
- Grouting/under grouting of anchor screws, fixing and base plates, steel and concrete supports
- Grouting/under grouting of bridge bearings and crane rails, steel constructions, fastening bolts and steel elements in concrete
- Grouting of rigid joints between precast elements or between precast elements and in-situ concrete
- Under grouting of wind power plants
- Grouting mortar acc. to DTp specification for highway works, series 2600, clause 2601 (UK) for use in highway works

## APPLICATION ADVICE

**Substrate Preparation:** Please take into consideration the advices written on the “General Application Advice for hydraulically setting grouting concrete and grouting mortar”.

**Mixing:** Please take into consideration the advices written on the “General Application Advice for hydraulically setting grouting concrete and grouting mortar”.

**Mounting:** Please take into consideration the advices written on the “General Application Advice for hydraulically setting grouting concrete and grouting mortar”.

**Note:** Emckrete 70 F has excellent adhesive properties when applied over properly treated substrates. The use of bonding agents, particularly the ones based on reactive polymers, is not allowed.

Emckrete 70 F is pumpable, when using the appropriate equipment. Please ask for our advice.

**Curing:** Please take into consideration the advices written on the “General Application Advice for hydraulically setting grouting concrete and grouting mortar”.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Working time	minutes	approx. 45	at 5°C
		approx. 30	at 20°C
		approx. 15	at 35°C
Application conditions	°C	≥ 5 ≤ 35	air and substrate temperatures
Consumption	kg/dm <sup>3</sup>	2.05	
Compressive strength	N/mm <sup>2</sup>		
		2 h	≥ 8
		4 h	≥ 11
		24 h	≥ 25
		7 d	≥ 55
		28 d	≥ 70
Flexural strength	N/mm <sup>2</sup>		
		2 h	≥ 2
		4 h	≥ 3
		24 h	≥ 5.5
		7 d	≥ 6
		28 d	≥ 7.5
Slump flow	seconds	168	5°C / 20°C to ASTM C 939-02
		148	20°C to ASTM C 939-02
Maximum grain size	mm	3	grading curve from 0 mm
Wet bulk density	kg/dm <sup>3</sup>	2.3	
Grouting height	mm	≥ 10	
		≤ 75	
Water addition	l	3.25 - 3.75	VeBMR-RiLi/DTp specification 2601 per 25 kg
Slump flow class		f3	≥ 750 mm
Swelling dimension	%	1.8	per ASTM C 827-01a
Shrinkage class		SKVM II	
Early strength class		B	≥ 25 N/mm <sup>2</sup> < 40 N/mm <sup>2</sup>
Compressive strength class	N/mm <sup>2</sup>	C55/67	DAfStb guideline for grouts
E-modulus (dynamic)	N/mm <sup>2</sup>	37,000	after 28 days

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

delivery form	25 kg sack; 1 pallet (40 bags @ 25 kg)
self-monitoring	EN ISO 9001
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs.
packaging disposal	Make sure single-use containers are completely empty. Ensure compliance with our information leaflet "Return of Emptied Transportation and Sale Packaging". We will be glad to send you this on request.
form	pulverous

### 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. [2100004659]