



Emcekrete® Type A

Hydraulically setting, Ready to Use, Non-Shrink Micro-Concrete

Product Properties

- Good pourability and flowability even at low water – powder ratio
- High early and final strength
- Suitable for Concreting thickness up to 75 mm
- **Emcekrete Type A** is Non- Shrink as per ASTM C -1107 Grade A.
- Ready to use – Simply Mix with Water
- **Emcekrete Type A** is free from harmful chlorides and other aggressive constituents. Adjacent steel areas are permanently protected against corrosion.

Areas of Application

- Micro-Concreting of rigid joints e.g. between pre-cast elements or between pre-cast elements and in-situ concrete
- Micro-Concreting During Repair of Concrete Beam, Columns, and all kind of concrete supports, bridges etc.
- Micro Concreting of Steel constructions, fastening bolts and steel elements in concrete.

Application Notes

General

Emcekrete Type A is a ready to use Hydraulically setting Polymer Modified micro concrete for use in repair systems. **Emcekrete Type A** is a non-shrink free-flow, micro concrete which can be used for repairs, especially when thicker overhead repairs are desired. **Emcekrete Type A** can be poured into the erected formworks and bonds thoroughly to the existing surfaces on account of its polymer Content.

Advantage

Emcekrete Type A is specially formulated to meet the requirements described above, owing to the selection of particularly suitable polymer binders and chosen aggregates. It guarantees a permanent reliable connection and bond between old substrate and new material. **Emcekrete Type A** distinguishes itself particularly by the properties like good pourability and flowability despite a very small amount of water added and high initial and final strengths.

Also because of low air entrainment, **Emcekrete Type A** forms a very dense grout. For fully flowable consistency, water can be increased maximum up to 4,2 liters for a 30 Kgs bag. The material possesses excellent bonding strength, which prevents debonding from concrete and wall faces. It is non-shrink and has high dimensional stability. The change of volume and shape after loading is negligible

Instruction to Use

All kinds of contaminants, such as dust etc must be removed from the surface to be prepared. The concrete substrate must be thoroughly wetted. After the depth has been adjusted, a tight shuttering is made before the micro concrete is placed

Form work

Must be Rigid and leak-proof. The form work should be strong enough to provide suitable support for flowing and water tightness and prevent the concrete matrix from budging. The form work should be placed after suitable Jacketing.

Mixing

For the Normal Concreting work of thickness upto 75 mm the suitable mix is: 1 sack = 30 Kg. **Emcekrete Type A** + 3, 6 to 4, 2 liters of water. For Mixing take the water in the mixing bucket and add the **Emcekrete Type A** Powder to it and not vice-versa. Air pockets are to be avoided. Pour **Emcekrete Type A** from one side only. **Emcekrete Type A** can also be placed by means of suitable Concrete pump.

Placing

While placing **Emcekrete Type A** and upto approx. 2 hours thereafter, strong vibrations of any kind are to be avoided. Never mix more **Emcekrete Type A** than can be placed within a period of 30 minutes. High temperatures accelerate the hardening process while low temperatures have a retarding effect. If the temperature is below 5°C, make sure that the ground where the mix is to be placed as well as the contact areas are heated to a temperature of + 20° C.

Curing

Exposed surfaces of **Emcekrete Type A** should be cured like concrete in order to avoid premature evaporation of water. It is advisable to spray **Emcoril** range of curing compounds on the newly placed micro concrete. As with all cementitious materials, rain or similar can cause slight surface blemishes.



Technical Data for Emcecrete® Type A			
Characteristic	Unit	Value	Comments
Grain Size	mm	4.75 mm down	
Bulk Density of Powder			
W/P Ratio		0.12-0.14	
Added Water	Liter %	3,6 – 4,2 12 – 14	Per 30 kg Bag
Flow	mm	230	At 0,13 w/p As per EN 445 Using Astm C 230 Mould
EarlyExpansion	%	1 – 2%	As per ASTM C 940
Time For Early Expansion			
Start	Minutes	20	
End	Minutes	120	
Compressive Strength (W/P =0.13)			Tested Astm C 109 Using 50x50x50 Cube Moulds
After 24 Hrs		≥20	
After 3 Days		≥35	
After 7 Days		≥45	
After 28 Days		≥50	
Application Time	Minutes	60 / 45 / 30	At +5° C / +20° C / +35° C
Processing Conditions	°C	≥+5 - ≤+35	Air and substrate temperature
Yield	liter	14.6	Per 30 kg Bag
Wet Gross Density	Kg/m ³	2.300	Tested As Per EN 1015-6
Setting Time			
Initial	Minutes	300	Tested As Per IS 4031(Part 5)
Final	Minutes	540	Using Vicat Needle Apparatus

Product Characteristics for Emcecrete® Type A	
Type of Product	Free flow, non-shrink grout
Form	Grey Powder
Shelf Life	6 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

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.

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