

Acid-Gel for the production of acid-etched concrete surfaces

Product description:

MICROGEL® contains acidic, surface-active ingredients to obtain a fine micro-exposure resp. slightly roughened concrete surfaces after application.

Fields of application:

MICROGEL® is used for the production of acid-washed, natural stone-like concrete surfaces, especially for architectural precast concrete and artificial stone.



links: „normaler“ Schalungsglatte Beton

rechts: der gleiche Beton mit abgesäuarter Oberfläche

Advantages:

Due to its gel-like characteristics and the easy and accurate application, **MICROGEL®** creates very evenly etched concrete surfaces, and is also suitable for vertical surfaces. Irregularities, caused by run-downs or punctual over-concentration during acidification with hydrochloric acid or similar acids, are no longer a problem. Further important application advantages are the reduced consumption and the reduced number of application repeats required in order to achieve the desired results. Due to the consistently stable, high viscosity and the high adhesion properties of **MICROGEL®** enable good and reliable results even by vertical applications. The uniform reaction phase is an important part to reach consistently good surface quality results.

Application instructions:

The concrete elements to be treated should be between 1 and 5 days old, but may also be older. The concrete surface should be saturated well with water before the **MICROGEL®** is applied. The “ready for use“ **MICROGEL®** can be applied to the concrete surface with a brush. Application via sprayer is principally also possible, provided that the sprayer is suitable for the high viscosity resp. the acid-content of the **MICROGEL®** (see “Available **MICROGEL®**-versions” below). The reaction phase is visually easy to recognise and can be intensified by manually brushing and should be determined in pilot tests. The duration of the reaction phase depends on a number of different factors and usually lasts between approx. 5-15 minutes. Any possible irregularities or insufficient roughening depths can be regulated by a repeated partial or complete treatment. Subsequently the whole concrete element should be washed with sufficient water (preferably warm water) using a high pressure water jet. It is important to ensure that no residues remain.

We recommend the subsequent application of **COLORFRESH® intensiv** or **COLORTEC® Max**, in order to protect the surface long term and to suppress the potential risk of efflorescence.

Available **MICROGEL®**-versions:

- **version “spezial“** – low-odour
- **version “V02“** – for vertical spray-application
- **NEW: version “free“** – odour-free/environmentally optimised
- **version “forte“** – maximum efficiency
- **NEW: version “connect“** – high viscosity

MICROGEL® “V02“ and **“connect“** are especially suitable for vertical application and have optimised properties, particularly concerning viscosity, adhesion and reaction speed. HEBAU has also developed a reasonably priced sprayer for vertical spray applications, which allows an accurate and non-misting application (suitable for all **MICROGEL®** -versions, except for „connect“). Delivery on request.

When applied according to the instructions, the reaction between the acid components in the **MICROGEL®** and the alkaline concrete surface lead to a neutralisation of the active ingredients. Therefore, providing sufficient water is used to wash off the surface which has been treated with **MICROGEL®**, the **MICROGEL®** will probably not lead to a significant alteration of the pH-value. If there are concerns, we recommend checking the pH-value of the water, e.g. with litmus paper.

Please note, that it is always necessary to carry out pilot tests which realistically correspond to the planned production process and application procedure.

Consumption:	Packaging:	Storage:
Depending on the absorbency, strength and age of concrete surface, approx. 200-300 gr/sqm per application.	20 kg plastic pail	Store in a cool and dry place . Can be stored for approx. 12 months in original containers.

	MICROGEL® version "spezial"	MICROGEL® version "forte"	MICROGEL® version "V02"	MICROGEL® version "connect"	MICROGEL® version "free"
Application characteristics				NEW!	NEW!
brushable	✓	✓	✓	✓	✓
sprayable	✓	✓	✓	-	✓
suitable for application on horizontal surfaces	✓	✓	✓	✓	✓
suitable for application on vertical surfaces	✓	✓	✓✓	✓✓	✓
suitable for precast concrete/cast stone	✓	✓	✓	✓	✓
suitable for cast-in-place concrete	following pilot tests				
Requirements for best results:					
surface pre-saturated with water	✓	✓	✓	✓	✓
age of concrete	unlimited	unlimited	unlimited	unlimited	limited
even distribution of aggregates in concrete surface	is always essential				
Characteristics of MICROGEL®:					
effectiveness	standard	increased	increased	increased	standard
odour	odour-reduced	standard	standard	optimized	free of odour
reaction time	standard	optimized	optimized	optimized	standard
gel-like	✓	✓	✓	✓	✓
thixotropic	✓	✓	✓	✓	✓
viscosity	standard	standard	increased	increased	standard
Reaction products:					
harmless	✓	✓	✓	✓	✓✓
nitrate-free	✓	✓	✓	✓	✓✓
Fields of application:					
architectural and decorative concrete	✓	✓	✓	✓	✓
intensive cleaning of the concrete	✓✓	✓	✓	✓	✓
slip-resistant (anti-slip) concrete surfaces	✓	✓	✓	✓	✓
Also recommended:					
high performance mould release agent	WABICON HP	separates physically, i.e. does not leave an oil-film on the concrete surface - good preconditions for an effective MICROGEL® application.			
special admixture for decorative concrete	ARCON-Fluid ^{+Plus}	creates self-/semi-self-compacting concrete without segregation tendency			
protective coating option 1	COLORFRESH® intensiv	protects against efflorescence and weathering effects — can be used directly after MICROGEL® application - creates a light shine and colour enhancement			
protective coating option 2	COLORTEC® Max	protects against efflorescence and weathering effects — can be used directly after MICROGEL® application—remains invisible			

Symbol explanation: ✓ applicable/suitable ✓✓ very applicable/suitable - not applicable/suitable

Please study our technical data sheets prior to application and always conduct pilot tests under real application and production parameters and allowing for a suitable period of observation.

Application steps



Legal notice:

The technical information contained herein, in particular relating to the function, use and handling of our products, is given to the best of our knowledge and is based on our present knowledge and experience of the products when appropriately stored and handled, and applied under normal conditions in accordance with the standard fields of application, as described in page 1. Due to the large variety of possible use and application scenarios, this data sheet raises no claim to completeness, but is solely intended to provide a non-binding decision support, which needs to be reconfirmed by the end-user through pilot tests. Pilot tests are always necessary and should be carried out following the advice given in the current Product Data Sheet and under realistic practical conditions, i.e. conditions must realistically correspond to the planned production process and application procedure. Case-related acquired knowledge is not directly transferable to similar applications. Product specifications are subject to alterations without notice.

Only the most recent issue of the Product Data Sheet is valid, which will be supplied on request or can be found on our website under www.hebau.de.

We guarantee for the perfect quality of our material according to our specifications. We do not take any liability resp. warranty for the desired end result, as we solely act as supplier of the products and the application of the products and other influencing factors are beyond our control and our field of responsibility.

Usual precautions and actions when handling chemicals should be observed (e.g. no eating, drinking, or smoking at the place of work). Additional instructions, which can be found on the corresponding product labelling or in the Safety Data Sheet, must be observed. If you do not have a copy of the current Safety Data Sheet, we will be pleased to send you one.

Our General Terms and Conditions apply. This information is valid for professional users. Our products are not recommended for private end-users. 24.11.2015