

Fields of application:

MICROGEL[®] is used for the production of acid-washed, natural stone-like concrete surfaces, especially for architectural pre-cast concrete and artificial stone. Please contact us for examples of [texts for your specifications / invitation for tender](#).



Left: "standard" concrete surface

Right: same concrete with acid-etched surface

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[®]**, it enables 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:

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.

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.

Application step by step:



In our online [video gallery](#) you will find a video about the application of **MICROGEL[®]**



Product description:

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

Consumption:

Depending on the absorptency, strength and age of concrete surface, approx. 200-300 gr/sqm per application.

Packaging:

20 kg plastic pail

Storage:

Store inside a suitable warehouse (not outdoors). Store in a cool and dry place. Can be stored for approx. 12 months in original containers.

Inquiry

Available MICROGEL®-versions:

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

Further characteristics of the different products can be found in our brochure ["EAG's \(ENGINEERED ACID GEL\) FOR THE PRODUCTION OF ACID-ETCHED CONCRETE SURFACES MICROGEL®"](#)

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.

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. Illustrations in our data sheets, brochures etc. are merely exemplary and not binding. Photos may have been edited.

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.

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

Inquiry

Microgel free

Hazard + precautionary statements according to CLP regulation / (EC) No 1272/2008



UN 1789

Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local regulations.

Microgel spezial, forte, connect

Hazard + precautionary statements according to CLP regulation / (EC) No 1272/2008



Danger / UN 1789

Hazard statements

H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local regulations.

	MICROGEL® version "spezial"	MICROGEL® version "forte"	MICROGEL® version "V02"	MICROGEL® version "connect"	MICROGEL® version "free" NEW!
Application characteristics					
brushable	✓	✓	✓	✓	✓
sprayable	✓	✓	✓	-	✓
suitable for application on horizontal surfaces	✓	✓	✓	✓	✓
suitable for application on vertical surfaces	✓	✓	✓✓	✓✓	✓
suitable for precast concrete (including GRC, cast stone, self-compacting concrete, HPC ...)	✓	✓	✓	✓	✓
suitable for construction site applications	Evaluate suitability under consideration of local conditions at project.				✓

Requirements for best results:

surface pre-saturated with water	✓	✓	✓	✓	✓
age of concrete	unlimited	unlimited	unlimited	unlimited	limited
even distribution of aggregates, sand and cement 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	✓	✓	✓	✓	✓

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

Also recommended:

High performance mould release agent	WABICON HP	Eases first MICROGEL® application, because active ingredients support clean concrete surface upon demoulding (no demoulding oil residue on concrete surface).
Special admixture for decorative concrete	ARCON-Fluid ^{+PLUS}	Avoids segregations and helps to reduce vibration towards semi-self-compacting or self-leveling concrete.
Protective coating - option I	COLORFRESH® intensiv	Protects against efflorescence, dirt and weathering effects — can be used directly after MICROGEL® application - enhances surface colour and creates a silky sheen.
Protective coating - option II	COLORFRESH® effect	Protects against efflorescence, dirt and weathering effects — can be used directly after MICROGEL® application — creates a wet-look finish.
Protective coating - option III	COLORTEC® MAX	Protects against efflorescence, dirt and weathering effects — can be used directly after MICROGEL® application — remains invisible/matt finish.

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.