

MAKING GOOD CONCRETE BETTER.

Company Brochure Ha-Be Egypt





High quality admixtures locally produced

HA-BE EGYPT SAE

THE HA-BE COMPANY

We manufacture concrete admixtures, surface protection systems and colours for the international concrete industry. For more than 45 years, we stand for competence in concrete technology. Founded in 1970 as construction testing lab in Germany, we constantly expanded and emerged to one of the leading manufacturers of the European construction chemicals industry.

HA-BE EGYPT

In Egypt, we participate in the local construction market since 2015 and established an own production plant, recently. Ha-Be Egypt is supplying to a number of remarkable infrastructure projects like the Ismailia and Port Said Tunnels as well as to several ready-mix, precast and >manufactured concrete product plants.



Our commitment to

SUSTAINABILITY & DURABILITY

We are convinced that long-term success is only possible with sustainable products. Therefore, we consider not only economic, but also social and environmental factors in our product development in order to provide a contribution to a sustainable and efficient use of concrete.

► Superplasticizers reduce CO₂ emissions

Our superplasticizers reduce the compaction energy and energy-intensive heat treatment. This not only saves considerable costs, but may substantially limit the harmful CO₂ emissions.

► Local responsibility

Ha-Be is keen to promote local manufacturing. By keeping the supply chain as short as possible, e.g. by employing local people and procuring regional materials whenever possible, Ha-Be enjoys close links to its local communities.



Product-System Ready-Mix and Precast Concrete

CONCRETE ADMIXTURES

Regardless of it is ready-mix or precast concrete: Producing and installing concrete is a challenging job and every concrete placement is different. Therefore, we have an extensive product portfolio that includes plasticisers, water reducers and superplasticisers branded PANTARHIT®, retarders, air entraining agents, accelerators, stabilisers, form release agents, and curing compounds. Ha-Be is making good concrete better. That is not only a slogan, it is a promise.



Concrete Admixtures

READY-MIX AND PRECAST CONCRETE

Regardless of what specific concrete properties are required - with the special admixture system for ready-mix concrete and Ha-Be's application service, customers are able to meet the defined technical requirements efficiently. Admixtures for the precast industry have to serve the efficient production process on the one hand, and the improved surface requirements on the other one.

► Admixtures for Ready-Mix Concrete

Our system includes traditional PANTARHIT® plasticisers, and superplasticisers, as well as high performance superplasticisers of the latest PCE-technology. They ensure long slump retention, improve the workability, and increase compaction in concrete with low water/cement ratios. Therefore, manufacturers, contractors, and applicators achieve an economical and a technical benefit.

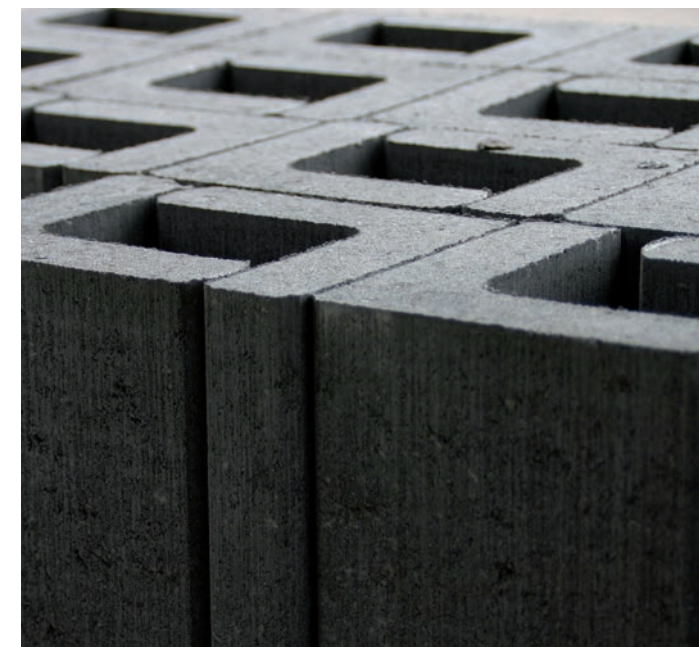
► Admixtures for Precast Concrete

Our special formulated high performance superplasticisers, named PANTARHIT® PC, cope with all challenges: Even at low temperatures and without external heat, they ensure a high strength, particularly at early age. In doing so, the PANTARHIT® PC product reduces stripping time. In conjunction with an optimised compaction, production expenditure can be reduced and productivity enhanced. The VARIOL line includes form-release and cleaning agents that ensure an easy and clean release of precast elements, and high-quality surfaces with less and minimised air bubbles.

Product-System Manufactured Concrete Products

CONCRETE ADMIXTURES

Regardless of it is semidry or wet cast products: Every concrete application is different. Therefore, we have a wide product portfolio that includes ANTIPOR plasticisers, stabilisers, swelling concrete admixtures. Ha-Be is making good concrete better. That is not only a slogan, it is a promise.



Concrete Admixtures

MANUFACTURED CONCRETE PRODUCTS

Paving stones, slabs and masonry blocks – most of the manufactured concrete products are being pressed and compacted. These products are manufactured within a highly efficient production process by having short cycle times and a good quality consistency. Wet cast elements are being casted instead. To ensure a smooth process, the concrete needs to have an excellent workability.

► Admixtures for Manufactured Concrete Products

Ha-Be's special ANTIPOR® plasticisers meet these requirements. They ensure an improved workability, increase the early strength, minimise second quality production, and attain an abbreviated curing time. In addition, they achieve a homogeneous, dense and smooth vertical structure that enhances concrete's visual attraction. In short: ANTIPOR® supports the proficient production of high-quality and durable concrete products.

► Admixture for Wet Cast

The innovative high performance superplasticisers PANTARHIT® PC have been developed to show a strong plasticising effect, minimise the compaction energy applied to concrete, and to ensure a high early strength. The good strength development may reduce curing times and improve productivity.

Product-System Projects

ADMIXTURES FOR DEMANDING PROJECTS

Each project has its own challenges. Whether building and transport engineering, or tunnel and underground construction: Ha-Be finds individual solutions in the short-term and in close contact and coordination with the concerned project engineers. Having own laboratories and an experienced application engineering service, Ha-Be supplies the right admixture system and technology.

Quelle: Wirtgen GmbH

Concrete Admixtures

ADMIXTURE SYSTEMS TO MASTER CHALLENGES

BUILDING AND CIVIL ENGINEERING CONSTRUCTIONS

Bridge constructions, high-rise buildings and industrial structures – Ha-Be's costumers profit from the company's high-quality products and its experienced application engineering service.

The concrete technologists and certified engineers give support in adjustments and purposeful application on site or within the plant to attain the ideal concrete results.

TRANSPORT ENGINEERING CONSTRUCTIONS

Modern transport routes play a chief part in connecting people, transporting products, and in transferring goods. To ensure a safe arrival, concrete applied in road, motorway and air traffic constructions has to meet high and

specific requirements. To fulfil them, Ha-Be developed a special range of products, which includes PANTARHIT® branded plasticisers, air entraining admixtures and curing compounds.



TUNNEL AND UNDERGROUND CONSTRUCTIONS

Shotcrete, concrete for casting the tunnel inner shell or precast tunnel segments – each underground construction project has its own technical challenges.

That is why Ha-Be has not only developed a special designed product portfolio, but also provides competent support by the exclusively specialised Ha-Be Tunnel Team.



Photo: Marti Deutschland GmbH



Photo: PERI GmbH



Photo: Golden Line Metro Doha



Hydrophobing Agents for Ready-Mixed Concrete and Precast Elements NOT ONLY FOR PAVERS

With our hydrophobic admixtures PROTECT HCS (ST), PROTECT HWA (ST) and the water resisting admixture PROTECT HWR-80 (DM) products, we have developed three protection options specifically for the ready-mix and pre-cast concrete industry. These products generate a hydrophobic cement matrix and reduce the capillary suction that minimise water absorption in concrete and, as a result, minimise defects such as efflorescence and frost damage.

3-Step-Technology with 6x Effect

THE CONCRETE PROTECTION CONCEPT

Colourised concrete products and exposed concrete have high demands on their visual appearance and durability. Optical defects such as efflorescence, dirt and colour fades are especially visible on coloured concretes and can cause costly complaints. To minimise the emergence of such defects and increase the durability of the concrete, Ha-Be Betonchemie has developed the PROTECT system. It consists of a three-step concept for the optimisation of the microstructure, hydrophobic treatment and impregnation for the holistic, sustainable protection of concrete.

► What damages concrete?

One of the main causes of concrete damage and optical defects is through water absorption in hardened concrete. It penetrates the concrete through the porous structure and is transported through capillary suction from the surface to the inside of the concrete block. Water penetration often leads damage such as frost damage or visual defects such as efflorescence. Visual defects can also be caused by weathering factors such as solar radiation and even green vegetation. Other causes also include contamination from food, drinks, grease and oil.

► How is the Concrete protected?

To minimise damage and defects water absorption in the concrete must be reduced and the concrete surface must be protected against the penetration of substances such as food, drinks, grease and oil. In short – concrete requires permanent effective protection against water, grease and oil.

► Ha-Be's Three-Step-Technology

To solve this problem Ha-Be has developed the threesteps-technology. The three steps consists of, optimisation of the microstructure, hydrophobic treatment for fresh concrete and the application of waterproofing-over the concrete surface.

► Concept with Great Effects

In the optimisation process of the microstructure, the microstructure itself and the packing density of the concrete are analysed and optimised through concrete technology. In combination with mass hydrophobisation and an impregnation of one of the PROTECT-Series, concrete gains holistic 6x protection from weathering, food stains, water absorption, oil spills, efflorescence and frost.



PROTECTS
AGAINST
EFFLORESCENCE



PROTECTS
AGAINST
WEATHERING



PROTECTS
AGAINST
FOOD STAINS



PROTECTS
AGAINST WATER
ABSORPTION



PROTECTS
AGAINST
OIL SPILLS



PROTECTS FROM
FROST

Powder Pigments and Liquid Colours

COLOUR WITH A CONCEPT

The „Colourise your Concrete“ concept is a specially designed concrete technology service for concrete colouring. After choosing and defining a colour, the customer benefits from the company's technical service: In order to avoid unpleasant surprises on the construction site, Ha-Be works with samples first and develops a formula that considers concrete technology parameters such as concrete colour, cement type, aggregates, water/cement ratio and dosing amount.



Powder Pigments and Liquid Colours for the Concrete Industry

CONCRETE COLOURS

Ha-Be produces ready-to-use liquid colours and distributes high-quality pigments for the concrete industry. The assortment includes inorganic, synthetic pigments based on iron oxides, chromium oxides, cobalt, titanium and cobalt.

► Range of Colour Tones

Colours with a basis of iron oxide, chromium oxide, cobalt blue, titanium white and carbon are suitable for concrete colouring. These pigments cover a wide ranged palette of subtle shades and natural looking colours. A wide range of individual shades can be achieved through the mixing of these base pigments. Based on samples, individual concrete colours can be produced such as brake lines, concrete and natural stone or templates for standardised colour systems like RAL or PANTONE®.

► Quality

All Ha-Be pigments and slurries conform to EN 12878 – „pigments for the colouring of building materials based on cement and/or lime“ and are certified accordingly.



Officially Approved

OUR POLYPROPYLENE FIBRES

Our polypropylen fibres are available in the following length: 6 mm, 12 mm and 18 mm. They are officially approved by the General Building Inspectorate Approval, Approval Number Z-3.73-2073, DIBt, Berlin, Germany.



Officially Approved

POLYMER & STEEL FIBRES

We are able to offer individual solutions for various construction projects with a product range of polymer fibres, and different types of steel fibres. There are various fields of application for polymer fibres. Depending on the product and application, fibres increase the fire resistance of concrete, optimise the green strength, reduce shrinkage cracks or improve the resistance against impact stress. Steel fibres have significant advantages over the conventional mesh reinforcement: Steel fibres are distributed three-dimensionally in the concrete, causing an even tensile stress and a reduction of crack formation in the concrete.

► Polymer Fibres

Most common fields of applications of polymer fibres are:

- Shotcrete
- Precast, tubbing & tunnel inner linings
- Concrete goods
- Industrial flooring
- Agricultural buildings
- Trafficked areas of concrete and maritime structures and hydraulic engineering
- Foundations, slabs, floors and screeding

► Steel Fibres

In addition to the technological advantages of using steel fibres, customers benefit economically: Omitted working processes save time and ensure rapid construction progress and thereby a reduction of costs.

Most common fields of applications of steel fibres are:

- Floors, slabs and foundations
- Industrial flooring
- Basement walls
- Open spaces and roadways
- Shotcrete with steel fibres



Research and Development

ENSURED PRODUCT QUALITY

By having strict factory controls according to international quality codes during the whole production process, Ha-Be ensures a constantly high quality of its products.



Research and Development

ESSENTIAL – THE CONCRETE LAB

A consequent product development success is enabled through the close cooperation between the chemical and building material laboratory at Ha-Be. The application engineers, chemists and concrete engineers develop innovative and economical admixtures.

Workability, air void content or consistency – Ha-Be analyses all concrete technological parameters in its concrete laboratories. After successful examinations, the application engineering service tests the product under onsite conditions.

The experienced technologists and engineers pass on their knowledge to mixing plant supervisors, drivers, logistics managers, architects and administrati-

on agencies in regularly organised seminars. General standards, classification in various exposure classes and their practical consequences are some of the fields responded to in these lectures.

The accreditation as assessors on German courts approves the fundamental practical experience and underlines the credibility of Ha-Be's engineers and technologists.



Dosage and Spraying Technologies

BM'S APPLICATION TECHNOLOGIES

Ha-Be's product range is completed by the application technologies of its subsidiary BM-Anlagenbau und Dosiertechnik GmbH. BM is a strong partner starting with the project planning and construction to the realisation up to the implementation and long-term accompanying service.

The advantages of BM-sprayers at a glance:

- Easy handling
- Short set-up times
- Exact applying quantities
- High profitability
- Easy cleaning
- Strong reliability
- High capacity
- Any unwanted drops out of the blast pipes



Dosage and Spraying Technologies

OUR PARTNER BM ANLAGENBAU

BM produces dosing systems for concrete admixtures and concrete colours, spraying technologies for surface protection and release agents as well as control programmes for this equipment. On request, BM and Ha-Be assemble the adequate equipment and integrate it into customer's existing production line.

► Dosing Systems

BM's gravimetric and volumetric dosing systems ensure an exact and efficient dosing of admixtures and colours. The subsidiary supplies mobile solutions for construction sites as well as stationary systems for plants with many mixers and production lines. BM is able to integrate their products fast, cost-efficient and easy into new facilities as well as into existing systems due to the modular product components.

► Spraying Technology

The BM spraying systems are planned and constructed to the latest edge of technology. This includes the innovative pulse-spray blast pipe system, which is equipped with an integrated volumetric measuring technology. The system allows adjusting variable application quantities without changing the blast pipes. The requested quantity is entered into the control system, which regulates the pulse frequency of the spraying pipes. This enables large pipes to spray small amounts. Being controlled by the volumetric measuring system, occurring variations due to e.g. blocked pipes are recognised immediately. By sending error messages, the responsible employee is able to react instantly and can therefore reduce the incidence of rectifiable rejects significantly.

Competent – Flexible – Economical

SERVICES ON-SITE & SYSTEM SOLUTIONS

Take advantage out of a pool of experience of our concrete technologists and engineers in application technology. They support you on site in adjusting our admixtures according to the application and thus achieving the required properties of your concrete. To get in touch with us or to find the latest product information, please contact Ha-Be Egypt by phone +20 2 206 44 144 or email office.egypt@ha-be.com

We are looking forward to getting in touch with you.

References

HA-BE ADMIXTURES FOR YOUR SUCCESS



SAADIYAT ISLAND BRIDGE, ABU DHABI

Photo: Perl GmbH



MOTORWAY A7 HAMBURG, GERMANY



SUEZ-CAIRO SERVICE ROAD, EGYPT



MOTORWAY S8, POLAND

Photo: BT Betontechnik GmbH



MOTORWAY A14 LUDWIGSLUST, GERMANY

Photo: Bickhardt Bau GmbH



MOTORWAY A2 BRANDENBURG, GERMANY

Photo: Bickhardt Bau GmbH



AL GARHOUD BRIDGE, DUBAI



BERLIN AIRPORT, GERMANY



CONSTANTA AIRPORT, ROMANIA

Photo: BT Betontechnik GmbH



RIGA AIRPORT, LATVIA

Photo: BT Betontechnik GmbH



DÜSSELDORF AIRPORT, GERMANY

Photo: Wirgen GmbH



FRANKFURT AIRPORT, GERMANY

Photo: Faport AG / Photo: S. Reischer



SAALE-ELSTER VALLEY BRIDGE, GERMANY

Photo: Doka Schalungbau GmbH



EMSCH SEWAGE CANAL, GERMANY

Photo: Göttsche & Kuhn GmbH



CITYRINGEN KOPENHAGEN, DENMARK



BIBRA TUNNEL, GERMANY



GOLDEN LINE METRO DOHA, QATAR



CROSSRAIL C510, LONDON, ENGLAND

Photo: BAMV

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