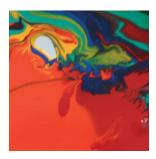


Becker Industrial Coatings





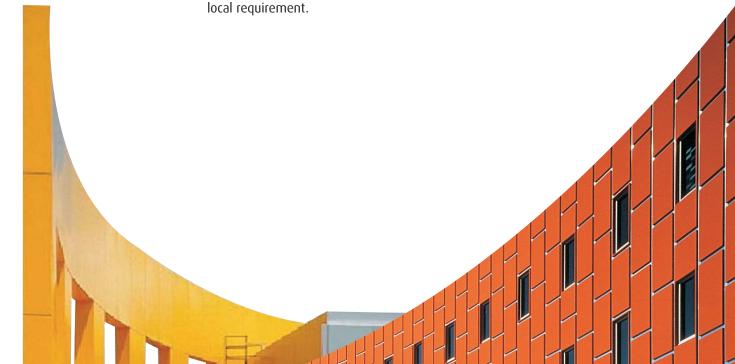


Becker Industrial Coatings has always been committed to colour, decoration and image.

Besides new finishes and new colours continuously being developed to provide the best answer to the customers' needs, **Becker Industrial Coatings** has developed the **BeckryMix** concept. This mixing system allows rapid delivery not only of sample colour matches, but also commercial batches of industrial paints from our various ranges, like **BeckryPol**, **BeckryTech**, **BeckryFluor**, **BeckryPlast**, **etc**. Challenging the traditional paint manufacturing process and its six steps (pre-mixing, grinding, letdown, adjusting, filtering, filling), this special concept gives our customers a competitive edge due to the quick delivery of coated coils, as well as the unique advantages of the reduction of paint usage costs, the recycling of "left-overs", and the choice of a wide range of pigments, including specific chrome- and lead-free systems.

BeckryMix is the answer to the pressure of just-in-time deliveries, stock reduction and addressing specific customers' needs.

BeckryMix is currently used for manufacturing Becker's paints for a number of coil coaters throughout the world either as a fully integrated and automatic system, or as a simpler but equally efficient manual system, depending on the local requirement.



The **BeckryMix** concept

BeckryMix Concept

BeckryMix is a modern concept used for manufacturing and colour matching paints. It involves specially developed intermediates and monopigmented bases, in combination with dedicated software for the paint formulation and process management.

From one concentrated set of bases, it is possible to manufacture a range of paints matching the customer's performance requirements.

BeckryMix's advantages

Thanks to its unique dedicated software, BeckryMix allows the customer:

- A very fast supply of ready-to-use paint in tailor-made colours at his own facilities,
- To produce the exact quantity needed for operation, avoiding unnecessary stocks of paint,
- To produce very low quantities of paint with no extra-charges for small batches. BeckryMix installation can be precisely designed to the customer's needs in terms of size and product ranges.





How it works





BeckryMix the main ideas

- All components are in liquid form, easy to store and to distribute, due to the optimized viscosity,
- The resin used to make the monopigmented concentrated base is selected because it corresponds to foreseen durability requirements,
- The pigments are also chosen for their quality, enabling us to reach maximum performance objectives,
- The pigment content of the bases is as high as possible, in order to reduce the volume in storage,
- The resin added to complete the formulation is either identical to the base resin, or entirely compatible, enabling us to produce mixes of any proportion,
- There are always two additional components per product type. The first is a transparent varnish to obtain saturated colours. The second is a white base used for whites, pastels and moderately saturated products,
- The mixing procedures are defined with precision, to respect the formulation parameters of each manufactured product.

BeckryMix Colour Production

There are two main scenarios. In the first, the required shade already exists and has been produced before. In this case we simply copy the mix, adapting the pre-defined proportions to the quantity that needs to be manufactured.

In the second scenario, the shade is new and a formula needs to be developed. The components and quantities are determined according to the type of paint and the shade of paint to be produced. Becker Industrial Coatings has developed unique BeckryMix software to manage the two scenarios. A colour computer has a detailed database of the colorimetric characteristics of each and every BeckryMix component. The computer system can be used to check and adjust the shades manufactured; it is also used to help calculate the balance of formulas and to memorize existing "recipes".

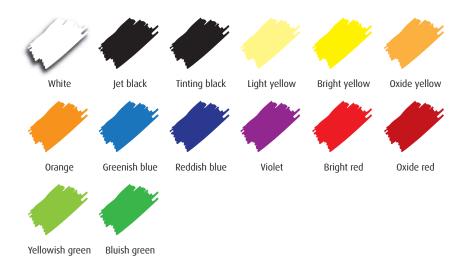


Some examples of BeckryMix products

The **BeckryMix Standard Polyester** enables us to produce different finishes: standard polyester gloss, standard polyester satin finish, anti metal marking matt polyester... and more, depending on customer requirements. If set up on a coil-coating site, the finished product can be delivered to the customer in just a few days, including coating, slitting and shipping operations.

The **BeckryMix HD Polyester** produces a range of high durable polyesters, as well as standard polyester, depending on the chosen intermediates.

Finally, the **BeckryMix PVDF** and **Plastisol** ranges act as the perfect complement to an extensive range of possibilities.



Equipment

The process is based upon the mixing of 3 to 6 components.

The equipment used depends on the quantity in weight and volume of the topcoats to be produced. To produce large quantities and large numbers of repeat batches can require complex automatic equipment, while small quantities and small numbers can be produced with a less sophisticated manual installation.

In both cases, the equipment allows the user to:

- Store the components (pigmented bases, intermediates, additives...)
 and stir them before use,
- Weigh the components precisely,
- Mix the components thoroughly and efficiently.





Services provided

If a customer wishes to set up a **BeckryMix unit** on their site, **Becker Industrial Coatings** can assist in the following ways:

- Help to define the choice of the equipment, products and finish,
- Train staff on how to measure the colours, how to use the equipment and the colour measurement software for colouring and mixing,
- Help in starting the **BeckryMix unit**,
- Supply the database for the colour formulating software,
- Make available mixing formulas for the customer's current colour range, as well
 as standard colours available on the market eg. RAL colours and NCS colours,
- Establish colours on demand from a sample or colour reference from standard colour charts,
- Telephone support and remote on-line updates and problem solving.

Our experience

Becker Industrial Coatings has over 15 years industrial experience of producing paints through the **BeckryMix process**.

This experience has proven the value of **BeckryMix** in bringing practical solutions to the problems of reduced delivery time and the division of needs.









BeckryMix and the environment

As a leading manufacturer, the **Becker Group** maintains a commitment to protecting the environment and minimising the environmental impact of its operational process.

Becker Industrial Coatings has demonstrated substantial advantages of the **BeckryMix unit**:

- The closed design of this manufacturing concept reduces the risk of the operators being exposed to solvent fumes, pigment dusts and other hazardous components.
- BeckryMix produces the exact quantity required for each coil coated metal order.
- A specific colour range, free from pigments containing harmful lead and chromium chemicals, is available and already being used on an industrial scale in a number of countries.
- Reworking of redundant colours or "waste" paint is possible. We work closely with our customers to address this issue when undertaking any new installation project.







BECKERS GROUP HEADQUARTERS

Wilh. Becker Holding GmbH

Kurfürstendamm 56 10707 Berlin

GERMANY Phone: +49 30 770 19 07 10 Fax: +49 30 770 19 07 29 E-mail: hg@beckers-group.com

BECKERS GROUP SITES

BANGLADESH

Berger Becker Bangladesh Limited «Berger House» House # 8, Road #2, Sector #3

Uttara Model Town
Dhaka-1230, Bangladesh Phone: +88 02 8953665 Fax: +88 02 8951350

Email: shamim.iqbal@beckers-group.com

Becker Industrial Coatings (Shanghai) Ltd

100 Jiangtian East Road Songjiang Industrial Zone CN-Shanghai 201600 Phone: +86 21 5774 3788 Fax: +86 21 5774 6581

E-mail: info-ch@beckers-group.com

Becker Industrial Coatings (Guangzhou) Ltd

No 1 Xinzhuang 5th Road Yonghe Economic Zone Guangzhou Economic & Technological Development District CN-Guangzhou 511356 Phone: +86 20 3222 1888 Fax: +86 20 3222 1883 E-mail: info-ch@beckers-group.com

Beckers High Performance Coatings

(Tianjin) Ltd No 32 Luyuan Road Wuqing Development Zone CN-Tianjin 301700 Phone: +86 22 5962 2818 Fax: +86 22 5962 2820 E-mail: info-ch@beckers-group.com

FRANCE

Recker Industrie

40 rue du Champ de Mars - BP 34 FR-42601 Montbrison Cedex Phone: +33 477 96 70 50 Fax: +33 477 96 70 70 E-mail: info-fr@beckers-group.com

GERMANY

Becker Industrielack GmbH

Norfer Str. 3 DE-41539 Dormagen Phone: +49 2133 501-0 Fax: +49 2133 50 12 89 E-mail: info-ge@beckers-group.com

Becker Industrial Coatings Ltd

Goodlass Road, Speke GB-Liverpool L24 9HJ Phone: +44 151 448 10 10 Fax: +44 151 448 25 00 E-mail: info-uk@beckers-group.com

INDIA

Berger Becker Coatings Pvt Ltd

Plot No. 114, Pilerne Industrial Estate IN-Post Saligao - Goa - 403511 Phone: +91 832 2407 103/104/107 Fax: +91 832 2407 106 E-mail: info-in@beckers-group.com

Beckers Industrial Coatings Italia S.p.A

Via Grandi 1/A, IT- 20090 Caleppio di Settala (MI) Phone: +39 02 950 96 01 Fax: +39 02 953 072 71 E-mail: info-it@beckers-group.com

Beyond The Surface

www.beckers-group.com

MALAYSIA

Becker Industrial Coatings (M) Sdn. Bhd.

No. 3 & 5, Jalan Anggerik Mokara 31/54, Section 31 Kota Kemuning MY-40460 Shah Alam, Selangor Daruf Ehsan Phone: +60 3 5122 7540 Fax: +60 3 5122 7542 E-mail: info-ma@beckers-group.com

NIGERIA

Beckers Industrial Coatings Ltd

KM 33, Lagos-Badagry Expressway Agbara, Lagos NG-Nigeria Phone: +234 (0)703 373 5655

E-mail: info-ng@beckers-group.com

Becker Farby Przemysłowe Sp. z.o.o.

ul. Wilhelma Beckera 7 PL-33-110 Tarnów Phone: +48 14 632 02 00 Fax: +48 14 629 33 22 E-mail: info-pl@beckers-group.com

RUSSIA

Becker Industrial Coatings AB

Branch Office 17, Kursovoy pereulok RU-119034, Moscow Phone/Fax: +7 495 695 16 45 E-mail: info-ru@beckers-group.com

SOUTH AFRICA

Becker Industrial Coatings (Pty) Ltd

105 Houtkop Road, Duncanville PO Box 1305 ZA-Vereeniging, 1930 Phone: +27 16428 4011 Fax: +27 16428 2711 E-mail: info-za@beckers-group.com

SWEDEN

Becker Industrial Coatings AB

Box 2041 SE-195 02 Märsta Visiting address: Brobyvägen 2 Phone: +46 8 590 790 00 Fax: +46 8 591 169 49 E-mail: info-se@beckers-group.com

UNITED ARAB EMIRATES

Becker Industrial Coatings L.L.C. P.O. Box: 12795

Ware House 2 - 9, Al-Khour Port, Nakheel Area UAE-12795 Ras Al Khaimah Phone: +971 72 27 88 53 Fax: +971 72 27 88 63 E-mail: info-uae@beckers-group.com

Becker Speciality Corporation 2526 Delta Lane

US-Elk Grove Village, IL 60007 Phone: +1 847 766 3555 Fax: +1 84 766 3595 E-mail: info-beckerspecialty@beckers-group.com

Becker Speciality Corporation

15310 Arrow Boulevard US-Fontana, CA, 92 335

Phone: +1 909 356 1095 Fax: +1 909 356 1095

E-mail: info-beckerspecialty@beckers-group.com

Becker Industrial Coatings (Vietnam) Co. Ltd

No. 1B, Dong An Industrial Park Thuan An District VN-Binh Duong Province Phone: +84 650 376 8830 Fax: +84 650 376 8705 E-mail: info-vi@beckers-group.com

