



hebro chemie –
Paint detackification products and complementary products
for wet painting processes

Paint detackification products

Basic concepts

In many industrial environments, for example in woodworking, metalworking and plastics, wet-painting is preferred for quality reasons. By the very nature of the process, not every particle of paint lands on the components being painted. This overspray is held in suspension in the surrounding air. **hebro** paint detackification products ensure that, in water-wash spray booths, these particles are washed out of the air by recirculated water.

The range of applications covers all known paint systems – from water-based lacquers to the simplest solvent-based lacquers to hard-to-remove clear coats or the latest lacquers such as UV lacquers.

The objective of coagulation is to bind tacky paint particles as a detackified substance, which virtually eliminates malfunctions in paint-lines and knock-on effects in the production process.

To this end, a detackification agent is added to the recirculating water system. Depending on the composition and the type of paint being used, the system uses various mechanisms to separate the paint particles from the water. These particles then have to be removed from the water to enable more paint to be absorbed.



The premium products from **hebro chemie** for all needs relating to water treatment for paint detackification are effective and state-of-the-art. We call them "premium" because every single one of them incorporates the combined knowledge and skill of our company, gathered from decades of experience and uncompromising customer focus.

Our customers know this. They know they will benefit from reliability and safety at a consistently high level. With every single product supplied by **hebro chemie**.



Facts worth knowing about **hebro** prenol

Product advantages that count

Irrespective of the individual process in use, our specialty products ensure that overspray is effectively and safely removed, which primarily makes a key contribution to preventing the build-up of contamination in machine components. Even the secondary product benefits are well known to connoisseurs and experts from industry and trade.

hebro products used in connection with paint detackification

- enable cost-saving, environmentally friendly detackification
- guarantee highly efficient operation thanks to low dosages
- demonstrate maximum functionality and high levels of dependability
- enable longer periods of water usability, which reduces costs arising from machine downtimes
- reduce the amount of water that has to be disposed of
- enable simplified disposal of the coagulated paint sludge
- reduce waste disposal costs thanks to higher quality paint sludge
- reduce odours by inhibiting the decay process
- when mixed in production quantities, they are not corrosive and comply with all health & safety regulations
- maximise the service lifetime of the paint-line
- are sustainable and optimize the carbon footprint



Three procedures, one objective: maximum purity

Sedimentation and flotation

It is essential to differentiate between different technical coagulation processes. Either the resulting coagulate should sink (sediment), float (float) or be kept in suspension (disperse) before being removed from the system.

Sedimentation

In sedimentation booths, the exact dosage of the right product ensures the machinery cannot clog up. The product ensures very fine flocculation which is easily pumped and this makes cleaning of the system a simple matter. The flocculated sludge settles in the appointed sections of the tank and is pumped out by a scraper chain or as part of the water exchange process and then discarded.

Flotation

In a flotation system, the flocculated particles are continually removed via a weir where the specially balanced composition of **hebro** products ensures a high degree of separation. This process ensures long service life of the booth machinery and low contaminations of the recirculating water. At the same time, microbial attack is minimised because the residual contamination is so minor that bacteria have almost no opportunity to gain a foothold.

Dispersion

In systems where the coagulate must be kept suspended to be discharged via centrifuges or decanters, flake conditioning plays the most important role.

With the products and know-how of **hebro chemie**, the lacquer to be discharged is not only completely de-bonded and split, the flake remains dispersed in the water without sedimenting. At the same time, however, the flake remains compact and therefore capable of being discharged.

Flocculants and deoaming agents

Depending on the type of paint being sprayed and the kind of paint system, it may be necessary to use a post-flocculant to improve flocculation or sludge consistency.

As one would expect, **hebro chemie** also offers a range of products for this purpose. As a rule, they are based on polymers and cause the particles of a dispersion to form larger-size clusters. If the paint is a water-based paint, use of post-flocculant is always recommended because the water-based paint is first broken down into its finest particles and then, by means of the post-flocculant, recombined to make a substance that can be treated.

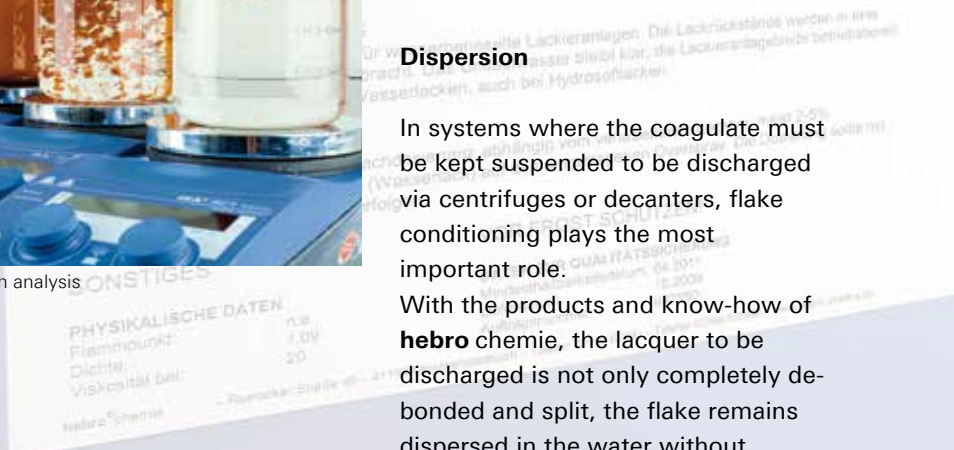
This series of products is rounded off by carefully formulated defoaming agents, which are essential in particular in connection with water-based paints. Finally, highly effective biocides* are available to enable any bacterial contamination to be combated directly and effectively.



Sedimentation analysis



Flotation analysis



*Use biocides with great care. Before use, always read the label and product information.

The more you know, the more you can achieve

How **hebro** products help with detackification

hebro products for water treatment in connection with paint detackification are well known or the range of applications they cover.

Here you will find an initial overview of the various products and their areas of application.



Solvent-based paints and lacquers

Special-purpose substances in the paint detackification products detackify solvent-based paints and lacquers, which makes them easier to separate out from the water. The ideal choice of detackification product will depend on the type of paint and the paint equipment in use. Change of colour shade during the coagulation process is possible and presents no problems.

Water-based paints

Water-based paints are added to the water. Effective coagulation involves precipitation of paint particles from the water and creation of treatable floc. This prevents excessive saturation of the recirculating water. Due to the large number of water-based paints available with differing compositions, we provide detackification products made up of special combinations of ingredients to match different cases.

Mixed applications

To enable customers to optimise their production processes, **hebro** chemie offers not just appropriate detackification products but also carefully formulated flocculants and other special additives.

Flocculation conditioners

Flocculation conditioners improve flocculation and are virtually essential components when water-based paints are being processed.

Biocides*

Biocides* are used if there is bacterial contamination of the recirculating water as a result of external conditions.

Defoaming agents

Defoaming agents prevent foaming in various paint systems.

Water conditioners

Water conditioners are special additives for improving the quality of the recirculating water long-term.

*Use biocides with great care. Before use, always read the label and product information.

Our services – more safety for you

After-sales support



Besides numerous products and accessories relating to paint detackification, hebro also offers corresponding services to ensure problem-solving actions and longer water service lives.

- On-site support by expert field sales staff
- Instruction and training of operatives on-site
- Support with technical problems by our own service engineers
- Continuous further development through in-house research
- Process optimization through automatic monitoring and dosing systems
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- Reduction of the CO2 footprint through a choice of coagulation concept adapted to the system

Thorough analyses in the hebro chemie service laboratory ensure that the detackifier selected is the right one or the installation and paint in use.

- Analysis of existing booth water to determine pH value, microbial contamination and solids content
- Characterization and coagulability tests of the paints used
- Creation of a laboratory report on the condition of the booth water and product recommendations for detackification of the paints in use
- If necessary, foam test and selection of a suitable defoamer

Please contact us

We always look forward to new challenges



Would you like to learn more about the ecological and economic advantages of **hebro** chemie's product range and, in particular, get to know the paint detackification products better?

Wherever you and your company are located, we can be with you within a short time.

Our permanent locations in the German-speaking countries and our many sales staff and partners in other locations enable us to maintain a close customer relationship with you and to accompany you in your activities.

We focus on fast response times for enquiries, orders and appointments as well as on high delivery dependability and flexibility.

You benefit both from our wide range of products and services and from our high standards of application expertise and close cooperation with our business partners.

Further information is available from these sources:

- on-site advisory visits by our field sales staff
- specific, technically-orientated product literature
- our website: www.hebro-chemie.de
- via our telephone consulting service on +49 2166 6009-0



hebro chemie supplies premium quality in four product groups.

- **Detackification and water treatments**
- **Coolants and metalworking fluids**
- **Cleaning and surface treatment products**
- **Maintenance and repair products**

We have compiled the product information contained in this brochure to the best of our knowledge and belief. It is based on the knowledge gained in our research and corresponds to our current experience in the industry.

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If you have any queries, just ask us:

hebro chemie –
Zweigniederlassung der Rockwood
Specialties Group GmbH
Rostocker Straße 40
41199 Mönchengladbach, Germany
Phone +49 2166 6009-0
info@hebro-chemie.de
hebro-chemie.de

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