

# The ultimate way in corrosion protection



We protect your products ...  
... maintaining the value for your customers



**Brano pac** USA  
Solutions with System

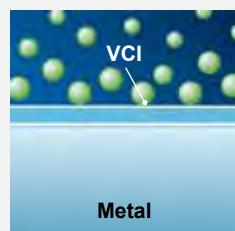
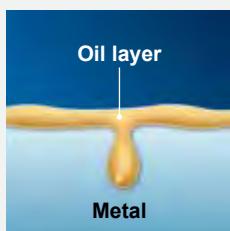
# We protect your products ... ... maintaining the value for your customers

- Every year, corrosion causes billions of dollars worth of damage



- Protect your products' value with BRANOpac

- This is how you can protect your products against corrosion:



Three methods for protecting your valuable products against corrosion:  
the VCI principle (Volatile Corrosion Inhibitors), the oil method and the desiccant method.

Whether in film, aluminium composite, liquid or paper-based form, BRANOpac products are the ideal way to protect high-quality metal products. Our technologies enable corrosion protection solutions that are more than a match for the toughest conditions. This protects the value of good products.

BRANOpac sets new standards – particularly with its paper and cellulose-based products. Its **BRANOrrost** corrosion protection paper is one of the world's best, having proven its worth millions of times.

Our unique, VCI-emitting cellulose-based **BRANOrrost Chips** can provide "dry" corrosion protection either alone or in conjunction with BRANOpac's VCI films under even the most challenging conditions.

You will find an overview of all BRANOpac products, as well as application examples, online at [www.branopac.com](http://www.branopac.com) or [www.branopedia.com](http://www.branopedia.com).

# We protect your products ... ... maintaining the value for your customers

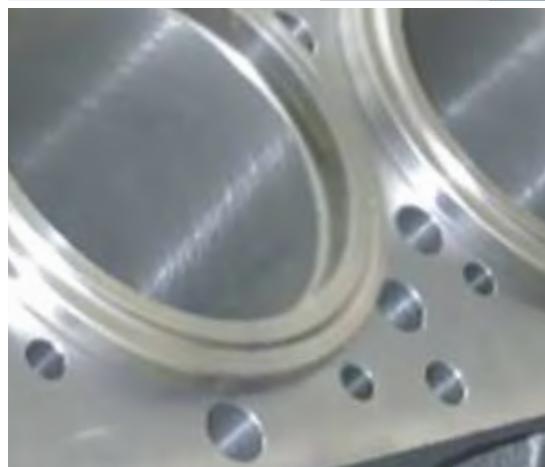


## ■ Our know-how

BRANOpac has decades of experience in the development and manufacture of temporary corrosion protection products.

A global network of sales partners ensures that you will receive the fast, professional assistance you require to solve your corrosion protection problems throughout your production process.

**BRANOpac – your partner for corrosion protection**



■ **Clean and safe straight to the destination – with corrosion protection by BRANOpac**

## ■ Systematic solutions

You can choose between BRANOpac's Basic, Premium and Customized solutions to suit your specific corrosion-protection requirements. Our system allows you to obtain products that offer the optimum protection for your needs.



# BRANOpac's products and services

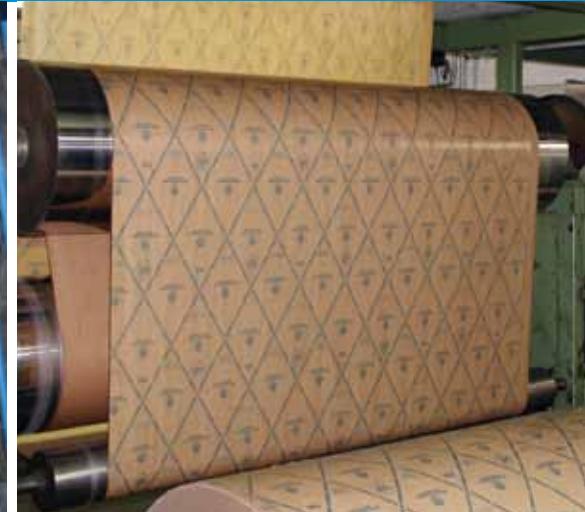
## ■ Analysis and services

BRANOpac has its own state-of-the-art laboratory for research and analysis. Thanks to our advanced testing equipment, we are able to ensure the quality of our products, while also professionally investigating specific corrosion incidents in order to develop customized solutions. Our chemists, technicians and laboratory specialists will be happy to assist and advise you. Our extensive range of services includes:

- Assessing and documenting problems and damage incidents
- Shipment simulations utilising artificial climate generators
- Test shipments with data-logger documentation
- Packaging consultations
- Transport simulations
- Surface analysis

All of the services listed here are available not only to the purchasers of BRANOpac corrosion protection products, but also to others who wish to purchase these services from our BRANOscience business unit separately.

**BRANOpac – leveraging our experience and technology for our customers**



## ■ Extrusion

BRANOfol-brand VCI corrosion protection films have been among the most successful on the market for many years now. BRANOpac produces the master batches required for these films in-house in its own compounding systems using a particularly "gentle" manufacturing process.

In addition to the production of VCI master batches for BRANOpac products, these facilities can also be used by customers for contract extrusion of temperature-sensitive polymers – either according to the customer's formula or using formulas developed jointly with the customer.

**BRANOpac – master batches and compounds "made in Germany"**

## ■ Coating

Since 1961, BRANOpac's high-quality corrosion protection products have been produced exclusively in Germany using machines developed especially for this purpose. Thanks to continuous process optimisation, BRANOpac production facilities that are optimally aligned for their purposes. These facilities are suitable for coating not only papers, but also films, nonwoven fabrics and many other materials with aqueous and solvent-based systems.

Your advantages:

- Utilisation of tailored coating solutions developed especially for the customer
- Adjustment of the coating volumes to suit customer requirements
- Customer-specific printing
- Processing of base materials according to customer requirements
- Quality assurance based on systems employing state-of-the-art sensor technology
- Process validation through ISO certification
- Utilisation of environmentally friendly techniques

**BRANOpac – everything from a single source**



# BRANOpac's products and services



## ■ Equipment and facilities

Thanks to our investment in highly flexible cutting machines for papers of all kinds, we can provide materials cut to practically any shape and size – from XXL sheets and postage stamp-sized pieces to rolls in different sizes. BRANOpac optimises your corrosion protection by providing you with the optimum format.

**BRANOpac – packaging without limits**

## ■ BRANOpac – *OPTIMUM CUSTOMIZED SOLUTIONS FOR YOUR PRODUCTS*

BRANOpac finds the optimum solutions for you and your products – by keeping with your specific wishes and requirements. Here are some of the services that can be customized to suit your precise needs:

- Coating type
- Base material
- Coating thickness
- Printing
- Delivery options
  - Jumbo-rolls
  - Mini-rolls
  - Large formats
  - Small formats

- Packaging shapes
- Contract processing
  - Printing
  - Punching
  - Batching/compounding

... And much more

**BRANOpac – we produce for you**

# What distinguishes BRANOpac

## ■ BRANOpac's DNA

### Customers and products

Customers and their products are at the heart of BRANOpac's work. WE protect YOUR products.

### Worldwide

BRANOpac is represented on four continents and has a global production and sales network.



### Environment

BRANOpac helps to protect the environment – through work processes certified in accordance with ISO 14001 and by using natural, fully recyclable paper and pulp for its products.



### Manufacturer

As a manufacturer, BRANOpac defines and oversees all development and production processes.



### Quality

BRANOpac safeguards its product quality in optimised business processes that are certified in accordance with ISO 9001.

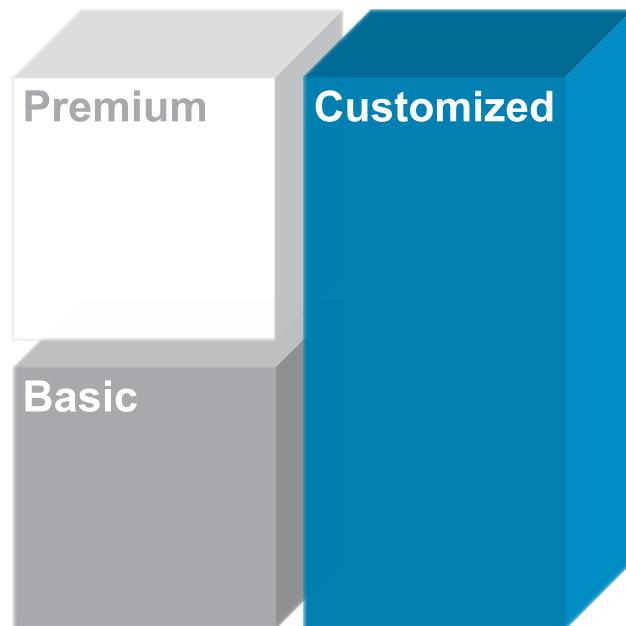
### Laboratory, analytics and applications technology

BRANOpac has a state-of-the-art analysis laboratory whose technology and know-how also is available to you for customized developments and application consulting.

# What distinguishes BRANOpac

## ■ Customized solutions entirely in accordance with your specific wishes

The company's top products and a wider range of services are offered in the **Premium** segment.



The **Basic** segment consists of products and services for simple and basic applications.

The **Customized** segment contains BRANOpac's expert and individual solution systems for a wide range of customer-specific requirements.

## ■ BRANOpac impresses – *THE ESSENCE OF THE COMPANY'S PHILOSOPHY*

BRANOpac has over a hundred years of tradition as an independent family-owned company. BRANOpac is an international company with roots in Germany, and all over the world, prominent companies put their trust in high-quality BRANO products "made in Germany".

Quality is the basis for this long-term success and as an independent producer BRANOpac maintains full control over all parameters relating to processes and quality. As a result, BRANOpac

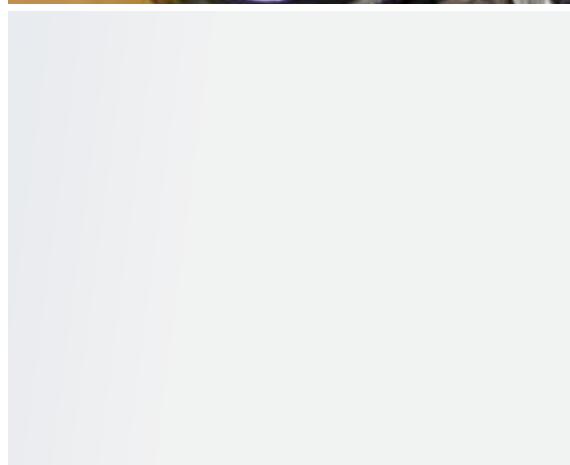
is able to successfully and effectively deliver what its customers require. The company's long-term service outlook determines the processes, standards and communication in its operational business. Customer orientation is the number one priority at all levels, and the company has a very clear vision: "Maximum service for maximum customer satisfaction."

**BRANOpac – protecting the value of good products**

# VCI papers from BRANOpac

## ■ PREMIUM: **BRANOrrost**

For more than 40 years, **BRANOrrost** has been recognised as the leading corrosion protection paper on the market for temporary corrosion protection, where it has proven itself innumerable applications. The brand's quality and reliability are based on many years of experience in production processes and development know-how, while the global service that is synonymous with the **BRANOrrost** brand – including analysis, consultation and training – is without compare.

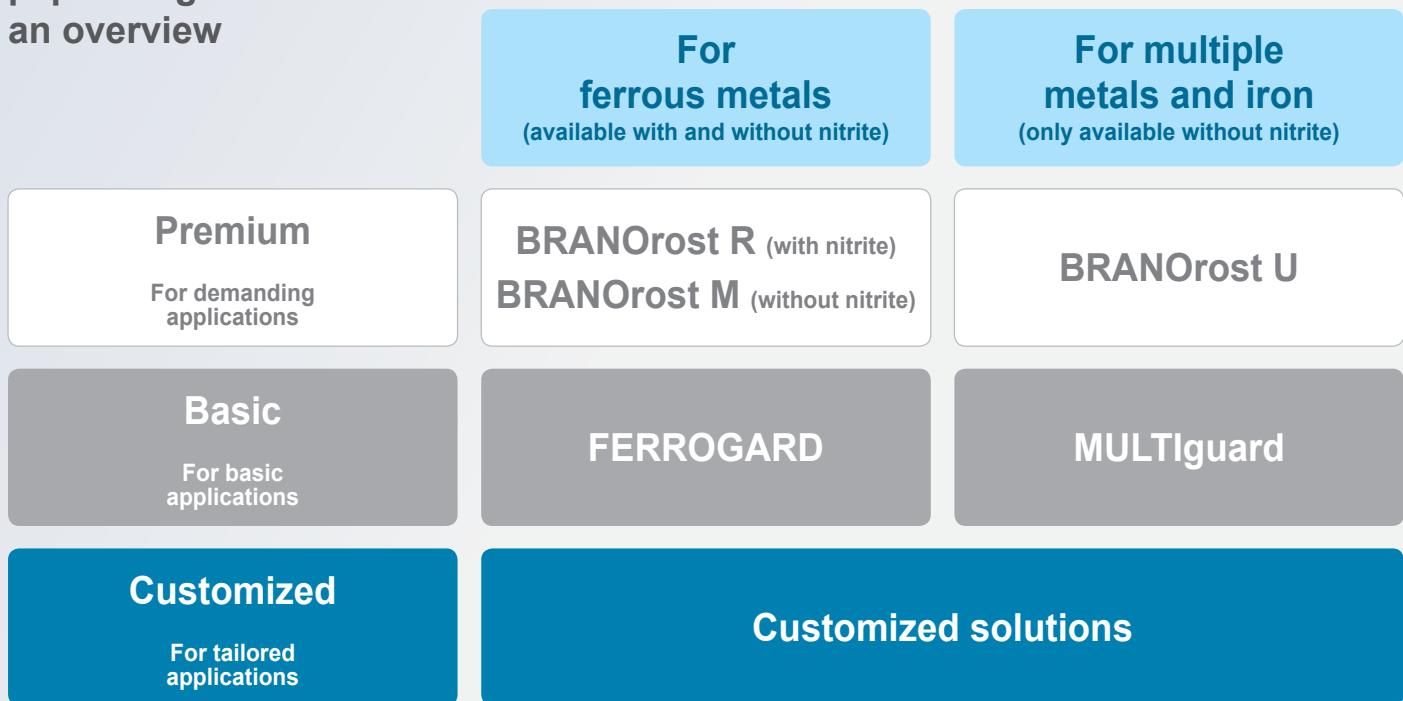


## ■ BASIC: **FERROGARD/ MULTIguard**

In cases where the products will be subjected to low or moderate stresses our basic papers **FERROGARD** and **MULTIguard** offer optimum protection for intermediate storage or shipment in moderately demanding conditions.

# VCI papers from BRANOpac

## ■ The BRANOpac paper range – an overview



## ■ BRANOpac protects – *HIGH-PERFORMANCE VCI PAPERS FOR ANY PURPOSE*

Corrosion protection papers from BRANOpac are high-quality kraft papers that have been fully impregnated with VCI inhibitors.

During transport or storage, VCIs offer effective protection against corrosion, both when in contact with the metal parts and at a distance to the parts. Thanks to the continuous emission of the corrosion protection agents, the protection against rust remains in force even if the package is opened briefly, as the VCI protective atmosphere is immediately reconstituted in full.

**BRANOrrost R** and **FERROGARD** have been optimized for the protection of ferrous metals (both when in contact with the goods and at a distance to the parts). In addition, they also offer reliable protection against corrosion for steel, chrome, pure tin, pure aluminium and cast iron products.

**BRANOrrost U** and **MULTIdguard** have been optimised for the protection of non-ferrous metals, such as zinc, chrome, copper, brass, bronze, pure aluminium and pure tin. They also offer reliable protection for cast iron when in direct contact.

# VCI films from BRANOpac



## ■ PREMIUM:

BRANOfol-brand VCI films have been developed and continuously optimised by BRANOpac and offer outstanding protection against corrosion. The premium films offer a wealth of additional properties:

- Extra-strong
- Reduced thickness
- Shrinkable
- Anti-static
- Electrically conductive
- Flame-retardant
- Cross-laminated
- UV-stabilised
- ... And much more

Many of the properties listed can also be combined with one another.

**BRANOpac – optimum VCI films for every purpose**

## ■ BASIC:

VCI films produced to BRANOpac's proven Basic quality are effective not only when they are in contact with the goods, but also at a distance, providing reliable protection against rust. They are waterproof and weldable and are ideal for automatic packing and bag production.

# VCI films from BRANOpac

## ■ The BRANOpac film range – an overview

For  
**ferrous metals**  
(available with and without nitrite)

For multiple  
**metals and iron**  
(only available without nitrite)

### Premium

For demanding  
applications

**BRANOfol R3\***  
(with nitrite)

**BRANOfol M1\***  
(without nitrite)

**BRANOfol M3\***

### Basic

For basic  
applications

**BRANOfol R3**  
(with nitrite)

**BRANOfol M1**  
(without nitrite)

**BRANOfol M3**

### Customized

For tailored  
applications

### Customized solutions

\* Available in a variety of Premium qualities:  
extra-strong, shrinkable, anti-static, electrically conductive, flame-retardant, cross-laminated and UV-stabilised

## ■ BRANOpac protects – *HIGH-PERFORMANCE VCI FILMS FOR ANY PURPOSE*

VCI films from BRANOpac sold under the **BRANOfol** brand offer outstanding corrosion protection for your products. No longer must metal parts be oiled before packaging. As a result, they are ready for use as soon as they are unpacked.

Thanks to their transparency, VCI films are ideal for use for export. As a result, a spot check in customs no longer requires the packaging to be opened – ensuring the continuance of lasting

VCI protection. The entire manufacturing process for **BRANOfol** products is monitored using the strictest testing criteria in our own development laboratory with state-of-the-art analytical methods, from formulation and master batch production straight through to the examination of the finished film – all to ensure that we achieve our paramount goal: the protection of your products.

**BRANOpac – we don't give rust a chance**

# Additional products for corrosion protection

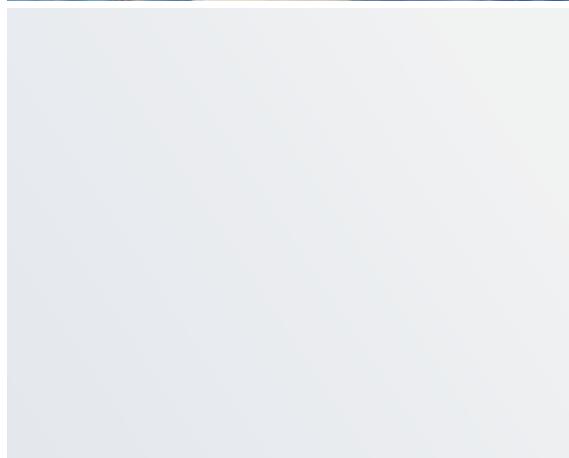
## ■ BRANOrrost Chips

**BRANOrrost Chips** are made of cellulose, cut or stamped into various sizes, and impregnated with premium VCI quality from BRANOpac. These chips are inserted or suspended in packages or cavities with closed outer walls to serve as a source of VCIs.

In addition, **BRANOrrost Chips** are the perfect supplementary product for VCI films in use under extreme conditions or in large machine packaging.

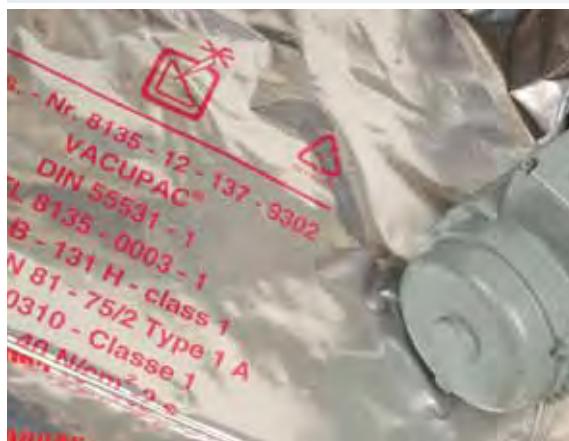
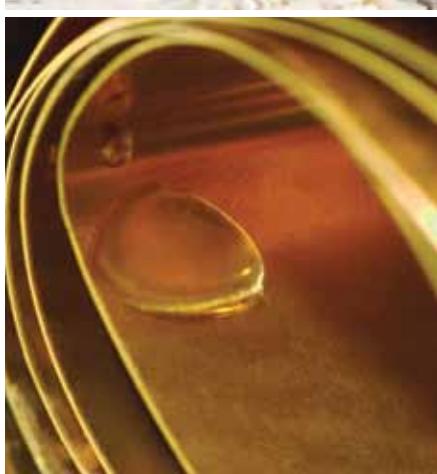
Combination packaging employing **BRANOfol** and **BRANOrrost Chips** can guarantee the integrity of barrier layer packaging materials (aluminum composites) – and is significantly more economical.

**BRANOrrost Chips** – a different way to fight rust



## ■ BRANOtect

**BRANOtect** is a versatile aid in dealing with metal parts. It builds on all metal surfaces an extraordinarily thin, and yet highly effective temporary protective film against corrosion. As a result, traces of moisture on the metal surfaces are broken up.



## ■ BRANOVac

**BRANOVac** is an aluminium composite film for more demanding requirements that offers outstanding tear-resistance and bursting-strength values and is designed to offer long-term protection of up to ten years.

# Additional products for corrosion protection

## ■ BRANOWave

**BRANOWave** is a polypropylene double direction corrugated sheet with active agents on both sides for active VCI corrosion protection. In spite of its light weight, **BRANOWave** is extremely sturdy and resistant to tears, shocks, wear and breakage. These plates can be used to line lattice boxes, as waterproof covers, as intermediate layers in lattice boxes, as dividers and on pallets.



## ■ BRANOpac protects – *ADDITIONAL CORROSION PRODUCTS – AN OVERVIEW*

Regardless of the form, such as VCI depots, barrier layer materials, hollow cross-section plates or liquids: through BRANOpac's innovative use of its proven technologies and extensive product range you are offered a wealth of ways in which to reliably protect your products against corrosion.

BRANOpac has the know-how and extensive product range necessary to serve the specific needs of each customer. With the expertise they

have gained from countless projects and consultations, the company's teams of experts are able to respond to your requirements and offer reliable, result-driven solutions for economical and effective results.

In addition, BRANOpac's research and development department is always working on new innovations, safeguarding the customary high standards of our products while continuously striving for improvements.

# Process chain from a single source

## Clean and safe straight to the destination

- Perfect results thanks to customized corrosion protection:  
BRANOpac – your expert partner

Your product



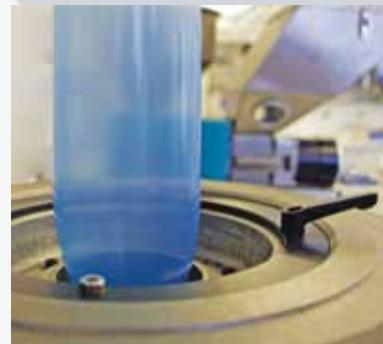
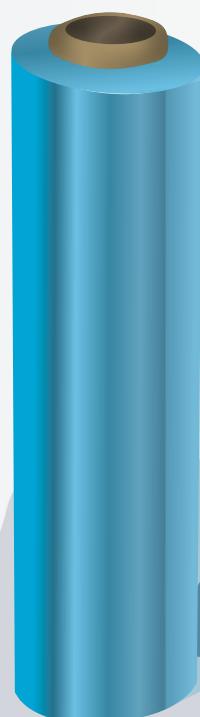
Consultation and analysis



Development of individual customer solutions



Your optimised VCI master batch



Optimised VCI film

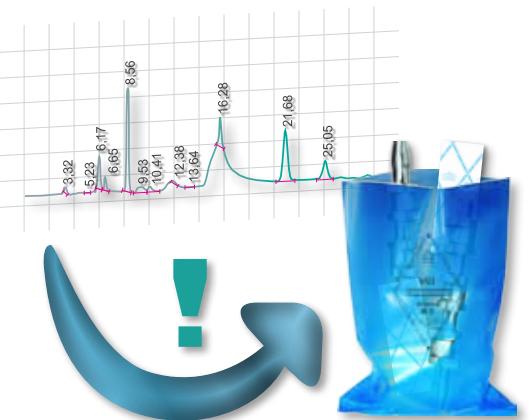
### The process chain

Protecting your products is the focus of everything BRANOpac does, and to ensure that this is done right, our experts accompany you every step of the way through your value chain. BRANOpac's systematic solutions mean that you not only receive help with the problem analysis, but that products specially tailored to your requirements will also be developed and produced: your product for your application.

**BRANOpac – with you right from the start**

Your perfect packaging

# Competence centre – with you right from the start



## ■ State-of-the-art cleaning bath analysis

Thanks to its combination of innovative technologies and decades of expertise, BRANOpac is able to guarantee its customers top-quality optimisation of all relevant work processes.

From precision analysis to customized and meaningful recommendations for the optimum corrosion protection for your work pieces – BRANOpac offers systematic solutions that protect the value of your products.

Thanks to the use of state-of-the-art analytical equipment in our own R&D department – such as the ion chromatograph shown here – and the development of individually tailored corrosion protection solutions, BRANOpac delivers uncompromising reliability at the very highest level.

## ■ BRANOpac accompanies you – *YOUR PERSONAL CONTACT PERSONS*

For VCI papersž  
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## ■ At your service worldwide

More information available at:  
[www.branopacusa.com](http://www.branopacusa.com)

Lich, Germany

Paris, France

Milan, Italy

New Delhi, India

Ningbo, China

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