

# Thermal Curing Systems

## PROTEFAN® for long-lasting protection





## Leaders in quality and service

TIB Chemicals originates from the merger of Goldschmidt TIB Germany and Goldschmidt Quimica de México. As manufacturer of specialised Basic Chemicals, innovative Inorganic Specialty Chemicals and Coating Systems, the company supplies to a worldwide market.

The largest production facilities of TIB Chemicals are located in Mannheim (Germany) as well as San Luis Potosi (Mexico). The sales and marketing organisation operates globally, with representations on all continents.

Employing approximately 350 qualified personnel, the TIB Chemicals manufacturing history dates back over 130 years of tradition and know-how. With a yearly production of more than 400.000 tons of chemicals, TIB Chemicals generates revenues of over € 120 million.

The yearly growth of TIB Chemicals' accrual rate is above the average for the industry. High-quality products, custom-made solutions and a flexible distribution and logistics service for our entire customer base are the basis of our success. Customer requirements are met with prompt and individual attention. We thereby focus on our main target, to increase and to enhance the business success of our clients.

Subdivided into three business units, the company operates Basic Chemicals, Inorganic Specialty Chemicals and Coating Systems. Combined they form a strong unit with a solid financial base and with the logistic and organisational structure of a large international enterprise.

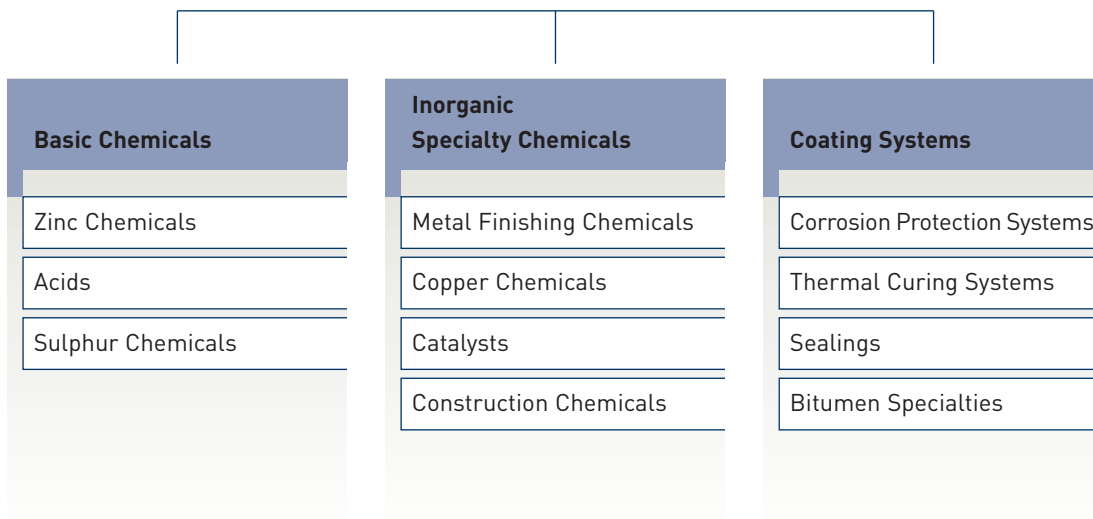


*TIB Chemicals successfully passed certification for the standards according to ISO 9001:2000.*





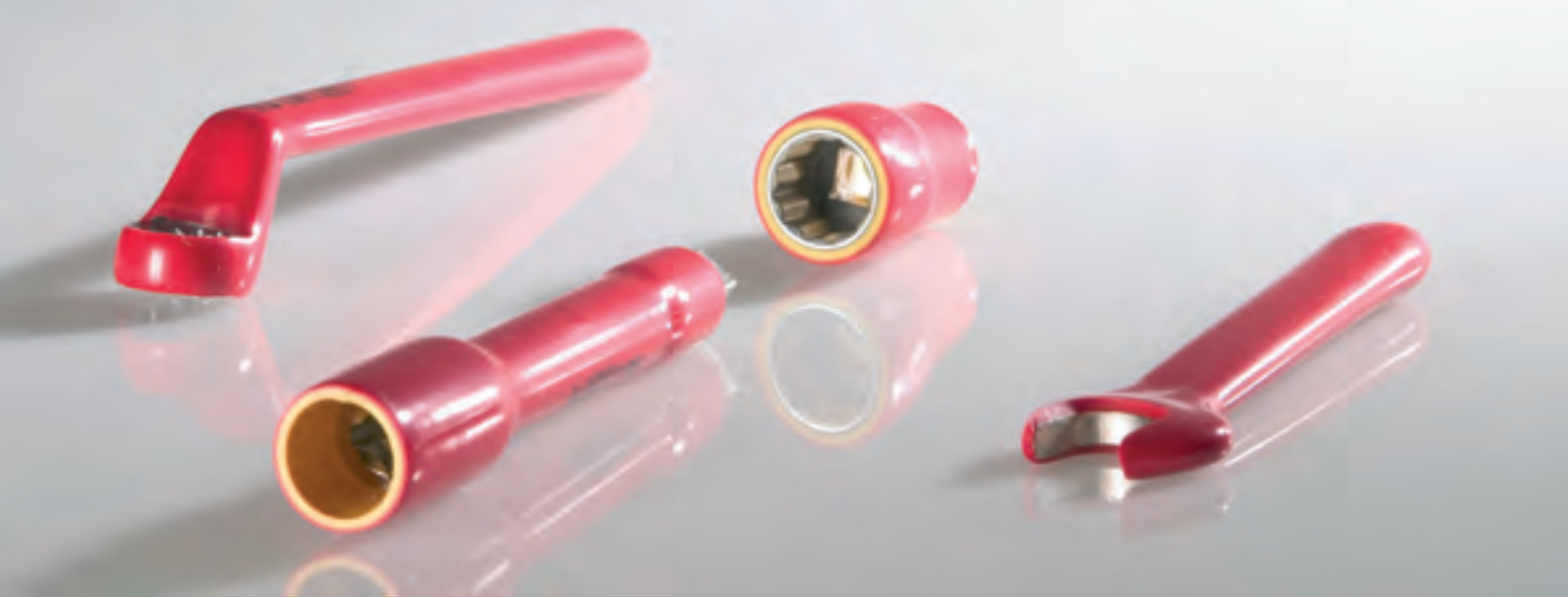
## TIB CHEMICALS



The three business units of TIB Chemicals produce and sell:

- ⚡ **Basic Chemicals** such as zinc chemicals, acids or sulphur chemicals, for chemical companies, the metal industry, the hot dip galvanising industry, the electroplating industry, the textile and plastic industries, for water treatment and for the production of food and beverages
- ⚡ **Inorganic Specialty Chemicals** based on the elements tin, zinc, copper and bismuth. These special compounds are used as electroplating chemicals in the electronics and metal industries, as copper chemicals in the automotive and chemical industries, as catalysts in the resin and paint industry, and also in chromate reduction for the construction industry
- ⚡ **Coating Systems** based on two component liquid polyurethane and epoxy systems, which have been developed as anticorrosion protection for the pipeline industry, for the valve-making industry, as well as for sewage outfall, water treatment and power plants. Thermal curing systems for electroplating, tool manufacturing and the packaging industry. Sealing compounds for gas and heating systems. Furthermore, modification and oxidation of bitumen as well as the production of bitumen-based systems for road surfaces

On the following pages, you will find our **PROTEFAN® Thermal Curing Systems**.



## Long-term protection for valuable surfaces

TIB Chemicals has been producing PROTEFAN® Plasticsols for more than 40 years, providing lasting protection of surfaces, for tool manufacturers and for the galvanising industry. Additionally, we produce PROTEFAN® stoving varnishes for interior drum linings.

### **The trademark PROTEFAN® is established throughout Europe**

- ⚡ PROTEFAN® dip coating is designed for application to metallic surfaces and can even be used on glass surfaces
- ⚡ show excellent chemical and mechanical resistance properties
- ⚡ withstand temperatures from -20 °C up to 80 °C and, for limited periods, 160 °C
- ⚡ insulate hand tools against up to 1000 Volts
- ⚡ decorative cover with excellent abrasion resistance and anti-slip properties
- ⚡ high protection against leaking and splintering
- ⚡ extend the performance life of galvanised tools
- ⚡ easy and efficient to apply
- ⚡ achieve variable dry film thickness of 1–5 mm

### **Individual customer solutions**

In close cooperation with all our customers, our established policy is to fulfil all their specific requirements, for example special resistance or setting requirements.

### **Continuous consultation with customer base**

Our highly trained technical personnel are available for advice, also on site, to provide and recommend the product system that results in the best solution for the customer. They offer expert support in finding solutions for application problems, which are then carried out fast and with reliable efficiency.



Various tools VDE-approved with signal coating

## Decorative tools providing safe insulation

### **PROTEFAN® plastisols are designed to create covers, that are free of pores, providing lasting protection for tools and chemical glass vessels**

Tools coated with PROTEFAN® are chemical resistant and isolate up to 1000 Volts. The highly abrasion-resistant properties of the resulting surface grant a safe and reliable insulation during handling of the coated tools. Chemical glass vessels with the transparent PROTEFAN® dip coating do not splinter or spill, even in the event of bursting.

PROTEFAN® surface coatings combine both functional and aesthetic characteristics. PROTEFAN® plastisols can be supplied in all current RAL colours and with different surface structures. The surface finishes provide both decorative and security aspects. For example, glossy finishes with very smooth surfaces can be combined with highly effective insulating properties for the electrical industry, mat and rough surfaces for industrial services, or antistatic surfaces for the computer industry.

### **Ease of application**

PROTEFAN® plastisols, designed for tools and glass flasks, are thermal curing plastisols applied through the hot dipping process.

- ❑ PROTEFAN® is highly efficient: Regardless of the required thickness, a single coat application is sufficient for complete protection of the tool surfaces. This application procedure saves the surfaces of the tools
- ❑ The pore-free and durable coating fulfil totally the specific customer's requirements



Grip cover



Production



Quality control – by sample of batch



## Galvanising equipments with long durability

### **PROTEFAN® dipping pastes for the protection of tubes, galvanising racks, and steel-accu vessels**

Resistant to temperature loads, acids and chemical attack, PROTEFAN® dipping pastes are formulated to withstand also strong mechanical loads. In addition, they have high impact resistance and excellent flexibility properties, particularly for example for durable bending of the hanging clips.

### **Even layers on any kind of surface**

PROTEFAN® dip coating has excellent design qualities as protective coating for galvanising racks, particularly for galvanising procedures such as ABS plating and other electroplating processes. By application through the dipping bath, the racks receive a dense and smooth surface coating which at the same time completely covers difficult and nearly inaccessible areas.



*Steel grating coated with  
PROTEFAN® 4110SG*



*Galvanising racks ...*



*... for various applications*



*Gearshift sleeve for the automobile industry*

## The right product for each application

PROTEFAN®	Electroplating industry	Tool industry	Drum Lining industry	
4000	■			plastisol with high resistance to chemical and mechanical wear
4013HS	■			
4015HS	■			
4110	■			
4115	■			
4125	■			
4300		■		decorative
4350		■		
4050		■		
6000			■	foam plastisol for the sealing of drums
10-1			■	stoving varnishes for internal linings, mat or gloss adjustment
200	■	■		primer
100-30	■			



*Different sizes of drums, for example 30 kg, 50 kg, 200 kg*



#### **Germany/International**

TIB Chemicals AG  
Muelheimer Strasse 16-22  
68219 Mannheim  
P.O. Box 81 02 20  
68202 Mannheim  
phone +49 621 8901-0  
fax +49 621 8901-900  
info@tib-chemicals.com  
www.tib-chemicals.com

Rainer Kuprion  
Director Business Unit  
Coating Systems  
phone +49 621 8901-812  
fax +49 621 8901-902  
mobile +49 162 2939516  
rainer.kuprion@tib-chemicals.com

Thomas Kunath  
Senior Business Manager  
Thermal Curing Systems  
phone +49 621 8901-839  
fax +49 621 8901-902  
mobile +49 162 2939539  
thomas.kunath@tib-chemicals.com

Jutta Stadler  
Customer Service/Order Processing  
phone +49 621 8901-676  
fax +49 621 8901 902  
jutta.stadler@tib-chemicals.com

Janine Wiemer  
Customer Service/Order Processing  
phone +49 621 8901-810  
fax +49 621 8901-902  
janine.wiemer@tib-chemicals.com

#### **Italy**

Evonik Goldschmidt Italia S.r.L.  
Via Falconera, 7  
I-26025 Pandino CR

Fabrizio Scesa  
phone +39 037 3975-224  
fax +39 037 3975-260  
mobile +39 348 2541850  
fabrizio.scesa@evonik.com

#### **United Kingdom**

Christopher P. Dorsey  
Senior Manager Middle & Far East, Asia  
19, Woodland Road  
Gomersal, Cleckheaton  
West Yorkshire  
BD19 4SN  
phone +44 127 4851277  
fax +44 127 4851277  
chris.dorsey@btconnect.com

#### **France**

Jean-Marc Witz  
Directeur de Vente  
33 rue de l'église  
F-67220 Saint Maurice  
phone +33 388 571189  
fax +33 388 571189  
mobile +33 609 165121  
tibjmw@aol.com

#### **Sweden**

Skandinavisk Pulerfaerg AB  
Box 191  
S-23106 Beddingestrand

Leif Waldeck  
phone +46 410 366136  
fax +46 410 366136

#### **Switzerland**

Fa. Lakorit  
Im Rigiblick 27  
CH-8623 Wetzikon

G. Kruska  
phone +41 449 301614  
fax +41 449 301614



## PROTEFAN® stoving varnishes for internal drum linings provide high chemical resistance

### **PROTEFAN® products enhance the function of drum linings and are physiologically inert**

PROTEFAN® stoving varnishes for internal drum linings are highly resistant to acids, salts and salt solutions, solvents, oil, grease, foodstuffs and water. PROTEFAN® foam plastisol for the sealing of drum lids offers both excellent sealing properties, due to its fine-pored foam, and excellent resistance to most acids, alkalis, salt solutions, degreasing agents and detergents.

## Cost-efficient production

### **PROTEFAN® stoving varnishes and PROTEFAN® foam plastisols can be applied efficiently**

PROTEFAN® stoving varnishes are applied at 220 °C, foam plastisol at 180 °C. Our foam plastisol, in combination with the lid, provides excellent protection. Additionally, PROTEFAN® foam plastisol offers high self-levelling properties and can perfectly adjust to the profile of the surface.

Application of the PROTEFAN® stoving varnishes is efficient and economically competitive, as the system can guarantee a thickness of 20 µm, already providing an exceptionally long-lasting performance.

