Aluminium Finishing Industry: Eco-friendly pretreatment and anodizing technologies.
Our Aluminium Finishing Activities

Coating
• Cleaning
• Etching
• Conversion coatings

Anodizing
• Cleaning
• Decorative etching
• Anodizing
• Sealing

Service Products
• Die cleaning
• Paint stripping
• Waste water treatment
• Cutting fluids

High efficient & eco-friendly technologies for a wide range of applications
Expect more
The World of Chemetall
At a Glance

- Headquarters: Frankfurt a.M. (Germany)
- Sales*: 537 million Euro (2011)
- Employees: 1,900 worldwide
- Production sites: 22 on all continents
- Subsidiaries**: more than 40 worldwide

*A Euro in fix exchange rate  ** incl. Joint Ventures
Broad Portfolio of Technologies

- Cleaners and etchants
- Corrosion protection
- Conversion coatings
- Thin organic coatings and primers
- Lubricants for metal forming
- Anodizing
- Chemicals for waste water treatment
- Paint strippers and paint detackification
- Non-destructive testing materials and equipment
- Aircraft sealants

Variety of state-of-the-art and eco-friendly technologies
IDEA!
The Concept for Success

Productivity accelerator for customers by offering integrated system solutions

Innovation

Most efficient use of our expertise & assets leading to profitable and sustainable growth

Assets

Value for customers

Environment

Environmentally-sound and game-changing technologies

Dedication

Global supplier of choice

IDEA! Concept - Driver of our customers’ and Chemetall’s business success
Technologies: Innovated by Chemetall (Extract)

- **GARDOBOND® PC** (Thin organic coating)
- **GARDOBOND® R** (Ni-free zinc-phosphating)
- **GARDOBOND® X** (Cr-free Al pretreatment)
- **GARDO® PROTECT** (Functional organic coating)
- **GARDO® PROTECT** (Cr-free Al pretreatment)
- **GARDOMER®** (Lubricants for metal forming)
- **PERMATREAT®** (Cr-free can-end stock)
- **GARDOBOND® R** (Dip-phosphating of Al)
- **GARDOBOND® PC** (Thin organic coating)
- **OXSILAN®** (Silane-based pretreatment)
- **GARDOCLEAN®** (Demulsifying cleaning)
- **X-MOR** (Non-Destructive Testing)
- **GARDOLENE®** (Liquid activation)
- **NAFTOSEAL®** (Sealants for Aerospace industry)
- **OXSILAN®** (Silane-based pretreatment)
- **GARDOCOOL®** (Cooling and cutting lubricants)
- **ARDROX®** (Chemicals for Aerospace industry)

Chemetall plays a leading role in surface treatment.
Global R&D Centers

One global R&D organization with regional centers of excellence

Europe
Frankfurt, Mönchengladbach

America
New Providence

Asia
Shanghai, Tokyo*

*Nippon Paint, R&D Cooperation
Global R&D Network

Strong R&D network to meet future market needs
Markets We Serve

Extensive expertise network gained through operating in various markets
Committed to our Responsibility

Health and Safety
Incidents have decreased significantly in the past few years due to regular trainings and investments in safety equipment.

Chemetall continues on this path towards the goal of zero accidents.

Environment
Chemetall’s performance is consistently above respective official local requirements.

We supply all the necessary technology and training while continuously searching for ways and methods to improve our environmental performance.

Chemetall is committed to highest standards of health, safety and environment
Certifications

Chemetall is certified according to:

- DIN EN ISO 9001 (Overall)
- ISO/TS 16949 (Automotive)
- EN ISO 9100 (Aerospace)
- ISO 14001 (Environment)

Qualified for our customers’ success
Chemetall and REACH

Team
A dedicated team of four employees in charge of REACH and international registrations on behalf of Chemetall GmbH, its EC affiliates, Chemetall Ges.m.B.H and Rockwood Lithium GmbH

Activities until today
• > 350 substances have been pre-registered
• 36 substances have been registered according to REACH (handed in 62 registration dossiers)
• another 25 substances will be registered by May 31th, 2013 latest (handed in 39 registration dossiers)
• approx. 2,000 Material Safety Data Sheets (MSDS) have been updated, others are subject to ongoing revision.

Our customers can rely on a trustful, strong and innovative partner
Strong Global Presence

Chemetall enables customers’ growth in all regions of the world

Locations (incl. Joint Ventures)

Headquarters: Frankfurt a. M., Germany
Comprehensive Technical Services

Expertise and a broad range of technical services for our customers’ success
Our global brands have proven to be successful in millions of applications
Expect more
Architectural Aluminium
Our Aluminium Finishing Activities

Coating
- Cleaning
- Etching
- Conversion coating

Anodizing
- Cleaning
- Decorative etching
- Anodizing
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Service Products
- Die cleaning
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High efficient & eco-friendly technologies for a wide range of applications
Aluminium Finishing

Your Plus:
+ Benefit from a full range of services and process elements including anodizing for the construction industry.

Innovation:
+ Gardobond® X, chrome-free process (Qualicoat and GSB approved)
+ Oxsilan® AL 0510 (Qualicoat and GSB approved)
+ Anodizing process
+ Gardo® Seal
+ Gardo® Etch
Aluminium Finishing: Key Technologies

Your Plus:
+ Benefit from environmentally-sound cleaners for the aluminium industry.
+ Advantages:
  • Completely borate-free
  • Liquid product – easy application
  • Low salt content – reduced scaling
  • Low foaming
  • Excellent cleaning also at low temperatures
  • Minimized surface attack

Innovation:
+ Gardoclean® T 5281
Aluminium Finishing: Key Technologies

Your Plus:
+ Chrome-free solutions for aluminium conversion prior to paint.

Advantages:
• Chrome-free, eco-friendly
• GSB and Qualicoat approvals
• In-line control possible
• Spray, dip and cascade applications
• Easy-to-handle, low-maintenance process

Innovation:
+ Gardobond® X 4707
Aluminium Finishing: Key Technologies

Your Plus:
+ Advantage:
  - Chrome-free
  - Significant cost savings possible
  - GSB and Qualicoat approvals
  - Excellent corrosion protection
  - Suitable for multi-metal applications

Innovation:
+ Oxsilan® AL 0510

New generation of metal pretreatment for aluminium finishing
Aluminium Finishing:
Key Technologies

Your Plus:
+ Highly efficient chemical powder paint stripping.

Advantages:
• Alkaline-accelerated, solvent-based product (based on benzyl alcohol)
• Stripping of polyester, polyester-epoxide and polyurethane powder paints
• Does not attack aluminium and zinc surfaces

Innovation:
+ Gardostrip® 5628
Your Plus:
+ New generation of alkaline E 6 Etch additives.
+ Advantages:
  • Excellent rinsing and draining behavior
  • Long bath lifetime
  • Improved matt finish and better etching
  • Batch optimization, increased productivity
  • Reduced foaming

Innovation:
+ Gardo® Etch
Aluminium Finishing: Key Technologies

Your Plus:
- Innovative additives for hot-water sealing of anodized aluminium

Advantage:
- Free of heavy metals
- Specifically designed products for use
  - in baths without filtration
  - in baths with filtration (filter pump)
- Optimized products for longer bath life

Innovation:
- Gardo® Seal product range
Major Approvals:
Oxsilan® AL 0510

GSB and Qualicoat approvals for Oxsilan® AL 0510
Major Approvals:
Gardobond® X 4707

Qualicoat and GSB approvals for Gardobond® X 4707
Technical Support: Outdoor Exposure at Chemetall

High-level global technical support
Technical Support:
Pilot Plant and Laboratory Service

High-level global technical support
The Chemetall Plus

- A leading global surface treatment company
- Enables customers’ growth in all regions due to
  - global organization
  - broad market expertise
  - comprehensive technical services
- Strong focus on the development of environmentally-sound and game-changing technologies
- Committed to highest standards of safety, health and
- Leading member in major industrial associations
- Complete range of technologies with Qualicoat and GSB approvals

Chemetall - The only globally dedicated surface treatment company
Chemetall

expect more
Thank you very much for your attention!

Your contact:
Chemetall GmbH
Trakehner Straße 3
60487 Frankfurt am Main
Germany

T +49 69 7165 0
F +49 69 7165 3018
surfacetreatment@chemetall.com
www.chemetall.com