



METAL PRETREATMENT

Integrated solutions
for surface metal treatment



www.surfchems.com



Beyond Quality Products & Services

At **SurfChem**, terms like quality, innovation, sustainability, customer satisfaction are not just words.

They are significant values embedded in our culture and our IQ, or better, our I₂Q – Innovation, Integrity, Quality.

We offer much more than products that “get the job done”, because, at SurfChem, quality and performance are just our baseline. We set the highest standards in terms of corrosion protection and paint adhesion while we provide the most robust formulations in the market. Furthermore, we put extra focus on sustainability and efficiency – always being environmental aware – delivering products and services that differentiate us.

Optimising your Processes, Tackling your Challenges

30 years of experience in metal pretreatment technologies made us build a strong reputation for designing high-end, sustainable solutions and delivering expertise and specialized technical support services to industries with demanding processes & material performance requirements.

With a broad product portfolio and a customer-orientated philosophy, we have the know-how to satisfy our customers' emerging needs. We monitor the markets, we understand the challenges – existing and latent – and we provide the optimum solutions tailored to each customers' requirements.

Our World

 Integrity

 Quality

 Technical Support

 Innovation

 Trust



We Make Waves!

Being from the very first moment on the side of our partners, listening, engaging and innovating to exceed our customers' needs, we have become experts in the metal pretreatment chemicals, conversion coatings, passivation, metalworking lubricants & coolants sectors.



Our experience within heavy industries such as Aluminium, Defence, Marine, Automotive, Powder Coating, Steel etc. has allowed us to create chemicals that minimize all types of waste, boost productivity, decrease costs while functioning on the highest performance & quality standards.



Our passion for continuous improvement of processes that have to perform in demanding environments has enabled us to go above and beyond expectations and we are proudly considered as a trusted partner.

That is how WE MAKE WAVES...



2045



At SurfChem, we have a customer-oriented view of business, staying tuned to changing customer needs and marketplace's conditions as well as creating long-term relationships with them, based on customer value and satisfaction.



INNOVATIVE SOLUTIONS

A long history of more than 30 years coupled with a strong Research & Development capacity, allow us to innovate and stay ahead of the competition. We offer the most technologically advanced & efficient chemical solutions in the metal pretreatment sector



WE ACHIEVE IT TOGETHER

There is no innovation without challenge. We are always up for a good challenge! Working hand-to-hand with our partners listening to & understanding their needs, aspirations and challenges, enables us to respond immediately with specialized, tailor-made solutions.



CONTINUOUS IMPROVEMENT & SUPPORT

Our teams engage, train & support all relevant stakeholders to receive constant feedback. This bottom-up approach is highly effective as we believe that small ideas can make a large impact, such as improved efficiency & focus and decreased time-wasting.



QUALITY & PRODUCTION OPTIMIZATION

The rules of pretreatment are **Quality, Automation & Efficiency**. With our LEAN chemical solutions, you can enjoy constant quality, maximized production capacity, minimized risks & wastes and increased sustainability that will magnify the efficiency of your production



YOUR PROFITABILITY

Using the most innovative chemicals & services will lead into efficient production processes & therefore optimized business. Maximized production capacity & minimized waste are translated into total cost reduction & commercial advantage. So, it is time to change, isn't it?

Together we can make waves.

05

Continuous improvement philosophy

#01 Lean Chemical solutions

Continuous improvement philosophy is not something new in the manufacturing - and not only - business, but a long-proven and used set of tools & practices based on LEAN principles. These LEAN principles are based in the philosophy of vertically decreasing waste and therefore, boosting productivity in the production, but also to add real value to the end product & the organisation.

We, at SurfChem, are implementing the continuous improvement philosophy, by designing LEAN chemical solutions which:

Minimise all types of waste

Waste can be visible but also can come in non-visible forms. One way or the other, it will negatively influence the production in many ways including but not limited to: time wasting, resource wasting, production flow disruption, raw material/energy/manpower over-consumption etc.



Enhance Quality

One of the strongest pillars that enables organisations to stay relative, competitive but also exceed customer expectations. Improving, and then keep high standards in quality is demanding – design, review & implement processes is part of the continuous improvement philosophy that keeps you ahead of the competition!



Decrease Costs

Limited productivity, time/resource wasting and increased stock of raw materials will lead to increased production costs which can be eliminated by process and material management improvement.



Increase productivity

Inadequate working methodology will lead to financial loss - time wasting activities will reduce the production capacity, which means money going down the drain at a per hour rate! Finding more potent and effective systems can increase productivity and therefore, deliver faster in this fast-paced era!



06
27

Lean Chemical solutions

#02 Types of wastes – How the right chemical choice can eliminate them?

As we mentioned earlier, going LEAN starts with eliminating waste to focus on what adds value to your process, which leads to adding value for your customers. It's important to know the types of waste and how they affect your business.

Energy

Higher chemical bath temperatures (or lower when chillers are involved) mean more money spent.

Physical Waste

We lead the way in profound waste reduction with innovative next-gen formulations. By-products created by your pre-treatment or metalworking processing are not just a production "headache", but also an indirect cost added to your product. With environmental laws becoming stricter every year and waste processing costs increasing continuously, the elimination of such waste will increase productivity and add value to your product.

Extra Processing

We all know that adding unnecessary work in a process leads to increased costs. These costs come in the form of raw material, time of people and production time.

People Focus

Reducing time-wasting leads in more focus. By radically decreasing times for cleaning, descaling, rejection + refill of chemical bath, we offer you LEAN cleaners, etchants, deoxidizers, conversion coatings and metalworking lubes and coolants that can add focus in your production.

Defective products

The most notable type of waste, can also lead to reputation damage. In the metal pretreatment chemicals industry the robustness of the process is the key to lower product defects. We have created robust chemistry, working on a wide range of limits to ensure products meet or exceed commercial specifications.

Underproductivity

To summarise, all these wastes lead to a decreased production capacity by increasing production downtime, time-wasting of human resources and increased waste output.

07



How could you decrease production downtime & how more value can you add to your product, if you could minimise all such kinds of waste?



Let us introduce you to our new LEAN metal pre-treatment chemicals era, where the right choice can have a huge impact in productivity, waste elimination and quality.

Lean Chemical solutions

#03 Is only the tip of the iceberg that could sink your productivity?

Reprocessing

High over-flows

Consumption

Bath rejections

Visible
Hidden

Wastes (disposal, manhours, energy etc.)

Extended Sanitation

Plant & equipment ageing

Low chemical robustness

Emerging Quality Issues

08

Our LEAN Solution Benefits



2020

Hassle-free application

Time & focus are of extreme importance - We engineer products that enable our partners to decrease maintenance time and allow them to shift their focus to other productive actions by offering stable and easily automated chemicals.

Non-stop Performance & Quality

Certified ISO 9001, 14001, QUALICOAT, GSB Int - In a fast-paced industrial environment performance & quality are constitutional qualities. Anyone can offer baseline performance – We guarantee above expectation performance and quality without any gaps.

Optimum cost efficiency

Price vs Cost – Using cost effective chemicals is way beyond price, it is about calculating the total production cost. To create the next-gen of pretreatment, we take under consideration all cost-related factors, such as energy, people focus - manhours, chemical consumption, waste disposal etc. That is how we beat the competition!

Ease-of-Use

Pretreatment line set up was never such uncomplicated & straightforward – Our technical support team will make sure you have a smooth transition in 5 simple steps set up -> calibrate -> automate -> training -> non-stop production!

Chemical process Robustness

How vigorous is your pretreatment process? (Robust = how resistant to defects) - Our partners need to be ready for random production start/stops, ultra-long production demand, high/low temperatures etc. That is why they trust our robust pretreatment & passivation formulations!

Radical waste-decreasing

Up to 80% - With environmental laws becoming stricter and the increasing cost of waste deposition around the globe, we are leading the way in profound waste reduction with innovative next-gen formulations.

Time to shift in the new, LEAN era of Pretreatment?

● THE OLD WAY ● OUR WAY

10
10



Waste

0 Overflows
0 Rejections
= up to 80% less waste output



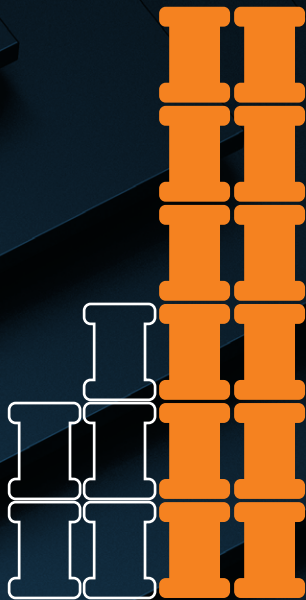
Energy

Minimized use of Chillers and Heaters –
Robust chemicals with wide range of operation T



Focus & trust

Minimized manpower needed for sanitation, maintenance & quality concerns



Equipment Longevity

Low conductivities & 0 salt scales – longer lasting equipment with higher productivity



Quality, Robustness & Performance

Achieve higher passivation weight range for 0-corrosion results with 0 wet adhesion issues

Continuous improvement philosophy

Made to measure

#05

Control

The end? Not for us! Our non-stop technical & R&D support will be working closely with production staff to control the process. For ever.

#03

Analyse

Trial production and live data analysis: Quickly set up and automate your production line while training everyone that is involved in the process.

#01

Define

We listen to your challenges. We collect all the appropriate production data and define the next steps for a hassle-free transition.

#04

Improve

Each production plant has different needs & working conditions. We commit to improve cost-effectiveness & maximise productivity.

#02

Measure

Our technical support & R&D teams measure your challenges & create the optimum proposal based on your needs.

11

Industries



Aluminium Extrusion



Automotive



Coils



Agricultural



Job Coaters



Multimetal coaters

12

Contents



Aluminium Solutions

Aluminium & Light Alloys Pretreatment

- a01** • Classic Alkaline/Acidic Cleaners & Etchants
- a02** • LEAN Cleaners & Etchants with Zer-0-Waste Technology
- a03** • Chromium-free passivation / Conversion Coatings
- a04** • Pre-Anodizing Passivation



Steel & Multimetal solutions

All types of Steel & Multimetal processes

- b01** • Cleaners and Deoxidizers for Steel & Multimetal applications
 - Alkaline cleaners
 - Acidic deoxidizers
- b02** • New Era of Pretreatment, Advanced Nanoceramic Coatings
 - NanoZ
 - MCoat
- b03** • "All-time classic" Processes
 - Iron Phosphate Process, Cleaner Additives & Passivation
 - Zinc Phosphate Process, Conversion Coatings & Post-Treatment



Aluminium Solutions



ALKALINE CLEANER / ETCHANT

Next Gen
zer-0-waste

Etchant

ACIDIC CLEANER / DEOXIDIZERS

Next Gen
zer-0-waste

New Gen
zer-0-waste

MIL Spec

CONVERSION COATINGS / PASSIVATION

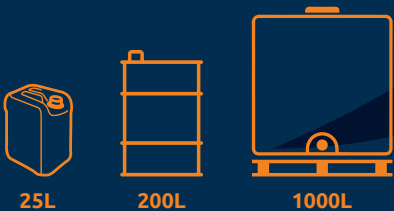
Colourless

Colored

Pre-Anodising
Sealing

SOLUTION	EcoClean AL	Aloclean SP	Dal PF PLUS	DEOXAL PRO	DEOXAL AERO	SurfPass Ti NOC	SurfPass C712	SurfPass PA TMOc
Application Temp deg C	R.T - 40	50-70	R.T - 40	R.T - 40	R.T - 40	25-30	30-35	25-30
Concentration By Volume %	2-3	1-6	1-3	1-3	1-3		1-2	0.6-1.0
Contact Time (minutes)	3-10	2-7	2-10	2-5	2-5		1-1.5	1-1.5
Application	Spray/Cascade/Deeping	Spray/Cascade/Deeping	Spray/Cascade/Deeping	Spray/Cascade/Deeping	Spray/Cascade/Deeping	Spray/Cascade/Deeping	Spray/cascade	Spray/Cascade/Deeping
Acid/Alkatine	Alkaline	Alkaline	Acidic	Acidic	Acidic	Acidic	Acidic	Acidic

14



QUANTITIES



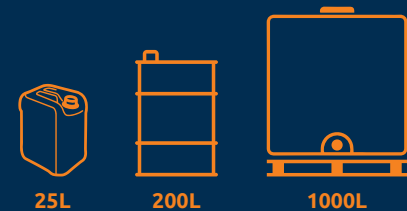
Steel & Multimetal Solutions



CLEANING			CONVERSION COATING		
Additive	Multi-Metal Oxide Scale Remover	Multi-Metal Heavy Duty Scale remover	New Tech! 2 stage	4 stage	>5 stage
Spray wand			Outdoor	High Performance steel	
			Advanced Iron Phosphate	Nickel-free, low sludge Zinc Phosphate	Multimetal thin film nanoceramics

SOLUTION	S100	Ferroclean LC	Ferroclean D	SurfPass Zr1	Iron S + SurfPass Zr1	SurfPass ZPII	SurfPass MCoat	SurfPass NanoZr
Application Temp	R.T-70 C	40-70 C	40-70 C	25 - 35	40-60	55-70	30-35	25 - 35
Concentration By Volume	0.1 - 1 %	2-5 %	2-5 %	2-4%	1-2	5-10%	2%	2-4%
Contact Time	1-5 mins	1-5 mins	1-5 mins	0.5-2	1-3	2-6mins	0.5-2 mins	0.5-2
Application	Spray	Deeping/Spray	Deeping/Spray	Dipping/Spray	Dipping/Spray	Dipping/Spray	Spray	Dipping/Spray
Acid/Alkatin	Alkaline	Alkaline	Alkaline	Acidic	Acidic	Acidic	Acidic	Acidic

15



QUANTITIES



Aluminium Solutions

a01 • Classic Alkaline / Acidic Cleaners & Etchants

Cleaning is one of an important step in the aluminium pretreatment process as it is used to remove organic pollutants such as rust preventatives, oils, stains etc. so the surface is ready to be etched and/or deoxidized. The next step, and one of the most important steps, is the etching/deoxidizing of the aluminium alloy. In this step, inorganic solids such as oxidations & second phase crystal are removed in order to create the perfect surface that will chemically react with the selected passivation / conversion coating, to form a durable & adhesive coating. We offer a wide range of cleaners and/or etchants that offer increased bath lifetimes, cleaning power and advanced surface preparation.



ALKALINE

EcoClean AL

Low-alkalinity, non-etching, liquid aluminum degreasing, suitable for aluminum and its alloys. Free from borate, phosphate and silicate salts. An ecofriendly product (Directive 648/EC/2004) that respects Humans, the environment and your work pieces.

AloClean K

Alkaline KOH based product suitable for uniform etching - Degreasing for Aluminium and its alloys, Steel & Galvanized Steel. The composition of the product prevents the deposition of reaction products on the walls of the bath, heat exchangers, and Spray nozzles. The choice of surfactants of non-ionic and amphoteric systems was based on the strict criteria of directive EC 648/2004.

AloClean SP

Liquid alkaline etchant which is used in immersion, cascade & spray plants, prior to further treatment such as Chromating and chrome free coatings. It removes aluminium and metal oxides from surfaces with steady etching rate

AloClean ADD

Special additive for anti-aging, anti-scale & enhancer for Alkaline Degreasing and Etching. Prevents the deposition of Aluminium salts on the Aluminium treated surfaces. Keeps the installation clean & effective. Enhances the efficiency of the Degreasing – Etching process.

ACIDIC

Dal PF

Acidic degreasing - deoxidation suitable for Aluminium profiles & it can be used by dipping, cascade and spraying methods. Removes lubricants and metal oxides from the surface of aluminum while providing a steady etching rate. It ideally prepares the surface for further processing, creating a hydrophilic surface. Does not allow the creation of deposits in heat exchangers, as well on the installation surfaces.

Dal SP

Liquid acidic Degreasing - Deoxidation used in immersion, cascade and spraying systems before the alkaline or acidic etching stage. Removes oils, lubricants and metal oxides from the surface of aluminum while providing a steady etching rate, where low-etching conditions are needed. Ideally prepares the surface for further processing.

Dal ADD

Special booster additive for acidic degreasers for aluminium alloys. Removes heavy duty oils, dusts, fingerprints, etc. leaving the surface of the object completely clean. Enhances the uniformity of the etching across the surface of the aluminum alloys. Use in combination with: Dal PF, Dal SP & Deoxal Pro.

Alox SP

ALOX SP is a liquid acid deoxidizer which is used in immersion, cascade spray plants. It removes metal oxides and neutralizes alkaline etching products from aluminium surfaces. It prepares the surfaces ideally to further treatment such as Chromating and chromium free finishing. Minimizes the creation of deposits on heat exchange systems, as well on the surfaces of the installation.

16
17

a02 • LEAN Cleaners & Etchants/Deoxidizers with Zer-0-waste Technology

THE PAST

The main reason of bath ageing is the dissolved aluminium. When the concentration of the dissolved aluminium surpasses 4 grams/L, bath ageing starts and therefore the etching rate decreases but also the quality may be compromised (due to salt deposition on the treated surface).

In order to increase the etching rate, the corrective actions are:

- Increased overflow and bath rejection
- Increased temperature
- Increased product concentration (increased consumption).



These corrective actions lead into:

- Increased waste volume & energy consumption
- Ageing of plant equipment (due to increased acidic product concentration)
- Increased salt deposition on equipment & therefore increased sanitation needs
- Quality concerns due to possible salt formation on the treated surface



THE FUTURE

At SurfChem, we help you remain focused on what's truly important in your business/production line.

With our new, LEAN degreasing/ etching products with Zer-0 Waste technology you can get rid of the "hassle" of ageing and put your attention on other critical processes of your production.

Our robust formula offers next generation characteristics:

- Dissolved aluminium concentration <3 gr/L without overflow
- Zero bath rejections
- Stable etching rate
- Low temperatures <40 deg C
- Unsurpassed surface preparation



Which leads into:

- Radical waste reduction up to 80%
- Chemical consumption reduction
- Zero salt deposition on plant equipment
- Minimized equipment ageing & sanitation needs

Lead your production to the new era of pretreatment – decrease wastes & increase productivity with our LEAN products:

Deoxal PRO

The LEAN acidic deoxidation / activation / neutralization way. Free of Chromates & Phosphates, creates the perfect surface prior to passivation / conversion coating. **Its robust chemistry delivers:**

- Stable etching rate at low concentrations & temperatures
- 0 bath rejections & salt deposition - up to 80% less waste
- Minimum attack on equipment & sanitation needs

Dal PF PLUS

The LEAN acidic degreasing & deoxidation way. Removes heavy duty oils, dirt & oxides creating the perfect surface to further treatment.

Its robust chemistry delivers:

- Stable etching rate at low concentrations & temperatures
- 0 bath rejections & salt deposition – up to 80% less waste
- Minimum attack on equipment & sanitation needs

EcoClean AL Plus

The LEAN & eco-friendly (Directive 648/EC/2004) degreasing way. Removes the most "stubborn" heavy duty oils & dirt without attaching/etching on the metal substrate.

Its robust chemistry delivers:

- Excellent cleaning capability even at lower temperatures
- Reduction of oil transfer to subsequent baths
- 0 salt deposition & easy maintenance



Products

17
10

a03 • Chromium-free passivation / Conversion Coatings

Chromium containing passivation chemicals are rapidly being replaced due to bans being placed over environmental & human toxicity. With more than 20 years of chromium-free research & production experience, we have created high performing, cost-effective and robust passivation chemicals that have long been certified by established quality organisations such as GSB International & QUALICOAT.

Our formulations are engineered in order to be suitable for any type of production – Spraying, Cascade or Immersion.

We have built long relationships with our customers and our chemicals are preferred due to:

- Long lasting baths
- Decreased chemical consumptions
- Decreased Energy, Water & Disposal outprint
- Excellent corrosion performance & adhesion performance with any type of paint & powder coating
- Robust Chemistry – easy to automate, control & resistant to in-line defects such as start/stops, temperature & line speed changes etc.



Products

SurfPass Ti NOC The Non-Stop Performer



Approved by Qualicoat & GSB Int, SurfPass Ti NOC is a chromium-free passivation coating for aluminium. Offers excellent corrosion (0 corrosion results on Genoa, hoek Van Holland & AASS tests) along with extreme adhesion (0 peeling, wet adhesion tests).

Its robust chemistry delivers:

- Easy control of film deposition
- Wide range of operating temperatures
- Energy efficient – low usage of heaters / Chillers
- 0 salt deposition – minimum sanitation
- Minimized Overflows & bath rejections

SurfPass C712 The Golden Aluminium Guard



SurfPass C712 is the colored chromium-free passivation coating for aluminium. Offers excellent corrosion (0 corrosion results on Genoa & AASS tests) along with extreme adhesion (0 peeling, Class 2 wet adhesion tests). It gives the same golden color as chromating, but WITHOUT the toxicity.

Its robust chemistry delivers:

- Easy control of film deposition
- Wide range of operating temperatures
- Energy efficient – low usage of heaters / Chillers
- 0 salt deposition – minimum sanitation
- Minimized Overflows & bath rejections

a04 • Pre-Anodizing Passivation

Pre-Anodizing is the latest trend in the aluminium pretreatment industry with an increasing demand. The porous anodising layer offers extreme corrosion performance and is already the choice for very corrosive environments such as near/on shore applications, industrial areas etc. We have created a chemical solution in order to couple this corrosion resistance with extreme adhesion. The resulting chemistry has made the process easy-to-control, more cost-efficient by using less energy and, finally, creating the perfect substrate for paint adhesion. Approved for both classic pretreatment and Pre-Anodizing process, our SurfPass PA tmoc can truly be your one-stop solution!



Products

SurfPass PA tmoc The one-stop solution



SurfPass PA tmoc is our latest passivation product, ideal for both classic & Pre-anodized aluminium powder coating (Approved by Qualicoat for both uses). It offers unparalleled corrosion protection (0 corrosion results on Genoa & AASS tests). It solves any adhesion challenge (class 2 powders) relative to Pre-anodizing while keeping the procedure, time & energy efficient. A truly above & beyond passivation conversion coating.

Its robust chemistry delivers:

- Easy control of film deposition
- Wide range of operating temperatures
- Energy efficient – low usage of heaters / Chillers
- 0 salt deposition – minimum sanitation
- Minimized Overflows & bath rejections
- No need of long treatment in high temperatures



Steel & Multimetal Solutions

b01 • Cleaners and Deoxidizers for Steel & Multimetal applications

Alkaline cleaners remove organic pollutants such as rust preventatives, heavy duty oils and lubricants. We offer a wide range of reduced-etching or non-etching chemicals that can offer extreme cleaning power to multimetal lines with substrates including - but not limited to - cold & hot rolled steel, all types of galvanized steel, Magnelis & aluminium alloys. Our alkaline cleaners are designed to work on low temperatures with low foaming, while providing effective cleaning power.

Our **acidic cleaners** & deoxidizers are preferred when a lot of processing is taking place prior to coating, such as laser cutting & welding. They are formulated to remove any type of scale, including rust, weld & laser spatter, heavy duty oils & lubes etc.



Products

ALKALINE

Ferroclean LF

a liquid alkaline cleaner which is used by immersion and spray, which shows excellent properties against flash rust, prior to further treatment such as enamel coatings etc.

Ferroclean D

s a liquid alkaline cleaner – activator which is used by immersion and spray plants, prior to further treatment such as Phosphating, Chromating and chromium-free nanoceramic coatings.

S100

Special degreasing booster – Low foaming - totally removes oils, dust, fingerprints etc. Process tip! S100 boosts uniform etching VIA extra clean surfaces!



Products

ACIDIC

Surf Gold

with extreme de-rusting properties, Surf Gold is the preferred product for both steel & copper parts. Free of inorganic acids & salts, Surf Gold is a completely biodegradable product.

F100

Special degreasing booster – medium foaming - totally removes oils, dust, fingerprints etc.



Products

Ferroclean LC

The liquid alkaline cleaner – activator that removes thermal oxides and provides adherence of coatings to laser cut surfaces (cross-cut test). It's unique formulation provide excellent cleaning, removal of oxides & conventional welding scale & treatment to the surface. It is applicable by spray or immersion.

1920

b02 • New Era of Pretreatment - Advanced Nanoceramic Coatings

The new era of pretreatment is high performing, robust, cost-effective & sustainable. In this new era, SurfChem has created environmentally responsible nanoceramic processes to support the most demanding applications that outperform “classic” processes. Our next-generation processes use Phosphate & heavy-metal free formulations that increase productivity & efficiency by reducing production wastes of energy, manpower, water & disposal without any compromise in performance!

New era at a glance:

- Cost-effective chemistry – use less for more!
- Radically reducing production waste of Energy, Manpower, Water & Disposal
- Lower temperatures, Less steps, Marginal sludge – free of heavy metals
- Greatly reduced production costs – up to 30% compared to “classic” phosphate chemistry
- High corrosion & adhesion performance – even without primer!
- Robust Chemistry - Easy to automate & control
- Environmental friendly chemistry – phosphate & heavy metal free



Products

MCoat The Golden Multimetal NanoGuard

New generation environmentally friendly Colored nanoceramic alternative to “classic” phosphate coatings. MCoat offers extreme corrosion protection either with or without primer (as per corrosion categories C1-C5) and beyond expectations adhesion (wet adhesion on Steel, HDG steel & Magnelis).

Its robust chemistry delivers:

- Easy to control & automate
- High efficiency
- Golden color treated surface
- Minimized energy, time, wastes & sanitation needs

➔ **High productivity**

NanoZ Advanced Zr Nanotechnology

New generation free of p Zr-based nanoceramic alternative to “classic” phosphate coatings. NanoZ offers excellent corrosion protection either with or without primer (as per corrosion categories C1-C5) and very good adhesion to a wide variety of metal substrates (incl. steel, HDG steel, Magnelis etc.)

Its robust chemistry delivers:

- Easy to control & automate
- High efficiency
- Minimized energy, time, wastes & sanitation needs



20

b03 • “All-time classic” Processes

IRON PHOSPHATE PROCESS, CLEANER ADDITIVES & PASSIVATION

The Iron phosphate process creates a non-crystalline, non-metallic coating that is chemically bonded to the metal/alloy substrate. It provides 3 key benefits to the paint system:

- Cleaning the surface of heavy-duty pollutants such as corrosion products, oils etc.
- Strong adhesion bonding for subsequent painting or other organic coating
- Corrosion protection in conjunction with organic coatings, such as paints and powder coatings.

Having more than 30 years of experience in this very versatile process, we can offer high quality, cost-effective functional products for any production line, regardless of how many steps are taking place in the process. From one stage manual spray wands to automated spraying or immersion lines.



Products

Iron S | Iron Phosphate

IRON S is a liquid iron phosphating process with double action, cleaning and coating generation on multimetal surfaces. Offers very good corrosion & adhesion on substrates including but not limited to steel, HDG steel, aluminium etc.

Its formulation offers:

- Long life baths
- Very good corrosion & adhesion
- Easy to control

SurfPass Z | The new way of Phosphating

SurfPass Z is a new generation of passivation.

It can be used as:

- Stand alone: increasing corrosion performance & adhesion compared to classic iron phosphating
- As a final rinse in your phosphating line – increasing 10x the corrosion performance compared to iron phosphating

Its unique chemical composition offers:

- Long lasting baths
- Extra corrosion protection
- Increased adhesion
- Easy to use and automate

ZP II | Ni-free, low sludge Zinc Phosphate

With ZP II we offer the latest technology in Zinc phosphating, with our Ni-free and extra low sludge formulation. ZP II provides an excellent corrosion protection & adhesion performance to a wide variety of metal substrates. That is because its high content in Zn Phosphate which is desirable for corrosion performance.

Its advanced formulation offers:

- Radical decrease in hazardous sludge/waste
- Long life baths
- Extreme performance
- High Zn Phosphating coating composition

SurfPass M | Flexible Pre or Post-treatment

A liquid, organic-based, double action product that can be used either as:

- A single step process to protect your products from flush rust when long storage periods are required
- No-rinse passivation after Iron, Zinc and Manganese Phosphating when extreme corrosion performance is required



Increase 10x the performance of your Iron phosphating line!

With Surf Pass Z1



Insight! Tough-to-remove lubes & dirt? Use S100 along with Iron S to achieve maximum cleaning capability!

ZINC PHOSPHATE PROCESS, CONVERSION COATINGS & POST-TREATMENT

The Zinc phosphate process is a long-established process, for its high performance and quality of conversion coatings. It provides metal surfaces with high levels of corrosion resistance, while strongly adhering to almost any type of coating. It does so by creating a non-metallic, polycrystalline coating containing iron, manganese and zinc phosphates. Furthermore, it can be used on a wide variety of metallic substrates including steel, galvanized steel, electrogalvanized steel, aluminium, any type of zinc-coated steel etc.

SurfChem's Zinc phosphating process converts the substrate surface into a fine crystalline coating with high levels of zinc phosphates. It is preferred due to:

- High performance cleaners & conditioners to create the perfect surface
- Low sludge technology greatly reduces waste volumes while increasing production rates
- Ni-Free – free of highly toxic Nickel salts
- Extreme performance – high corrosion & adhesion performance
- Robust chemical technology – hassle-free application

21

c01 • Industrial Cleaners & Paints Strippers

We offer a wide range of cleaners, depending on the process parameters and your needs. Our portfolio consists of water & solvent based cleaners that can remove any type of dirt/ pollutant on a wide range of surfaces including industrial floors, engine lubes and inox production equipment.



Products

C100 plus | The heavy stain remover

This water-soluble product can remove literally everything! From 10's years old & stacked powders from your factory's floor to high strength glue. It can be used in a variety of dilutions in order to fulfill all your needs, ranging from everyday maintenance to extremely stubborn stains.

KM100 | The Dissolver

Where water soluble cleaners are forbidden, KM100 is the choice. An organic-based cleaner that can remove any type of stain including but not limited to heavy oil, grease, dyes & powders.

Surf Inox | The salt breaker

With Surf INOX you can maintain & protect your stainless-steel surfaces & equipment. Its unique formulation is engineered to remove scales & salts quickly without chemically attacking the stainless-steel surface.

3D Klean | 3D printer cleaner

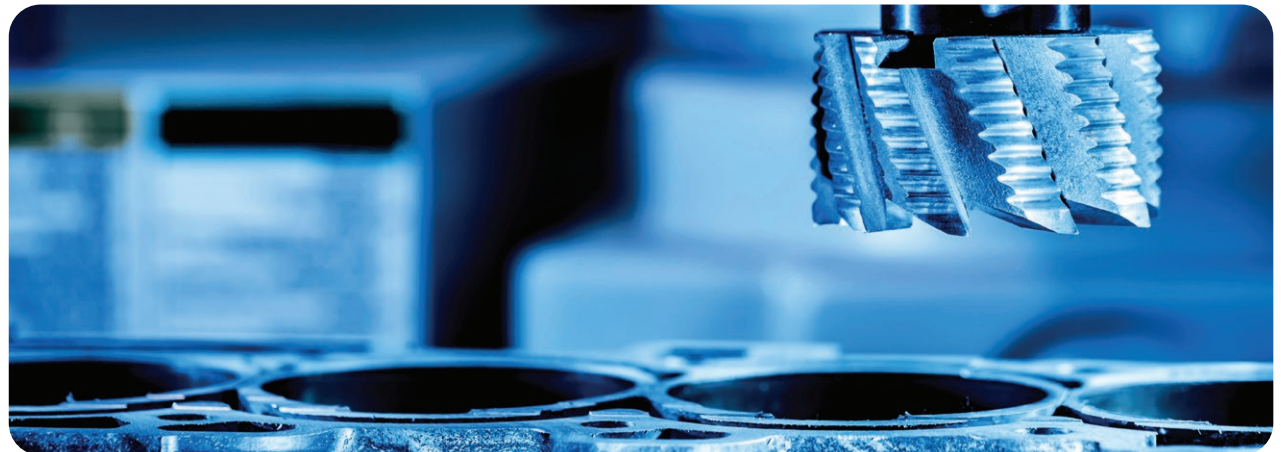
Its unique composition removes any residues of resin from your 3d printed pieces without attacking, discoloring, or etching the surface. An ecofriendly product (Directive 648/EC/2004) that respects humans, the environment and your work pieces.

SurfStrip 40-60 | The quick paint stripper

Free of methylene chloride, phenols and cresols. It dissolves the polyester powder coatings quickly, leaving no trace of them, making aluminum profiles, parts and metal objects ready to be reworked.

22

**See also our
metal working
lubricants'
portfolio!**



The End? No! As promised... Non-stop support.



Our strategic focus on customer satisfaction is based on four fundamental pillars:

High quality products

Customer loyalty, trust & long term relationships

Specialized & focused technical support service

Customer training

We are a trusted partner for our customer, not another supplier in their supply chain.

23

...this is how we make waves!



Production Plant

Ritsona Industrial Area, 34100 Avlis, Greece

Corporate Offices

Agias Triados 65A, 19002 Paiania, Greece

Tel.: +30 22620 72085, Fax: +30 22620 72063

info@surfchem.gr | www.surfchems.com