CONDORLUBE TF 22
POLYMERIC LUBRICANT FOR DRAWING

We have the pleasure in presenting you the new polymeric lubricant developed in Condoroil laboratories: **CONDORLUBE TF 22.**

The use of **CONDORLUBE TF 22** for the chemical preparation of carbon and stainless steel pipes drawing, guarantees a considerable saving linked to a simplification of the preparation cycle and to a lower wear of the tools. The use of a polymeric lubricant sees its main field of use in the mechanical industry where the request for a minimum residual can be an important assessment parameter in the choice of the pretreatment cycle to be used

The reductions that can be achieved with **CONDORLUBE TF 22**, in terms of area and elongation section, are in the order of 40-45%. The product obtained has a residual which can be easily degreased in an alkaline environment.

CONDORLUBE TF 22 provides a simple use management: not doing a chemical reaction, but only a physical deposition.

The product is maintained simply by restoring the mixture established in the starting phase.

Concentration of **CONDORLUBE TF 22** in water depends on the reduction or shaping which is carried out on the tube to be drawn.

For optimum results the pipe to be treated in CONDORLUBE TF 22 must be free from oxide and oils / fats.

The presence of metallic dust and dirt in general, or the presence of rinse water, contaminated by the pickling, on the material to be treated in **CONDORLUBE TF 22** adversely affect the life of the product.

CONDORSKIN G
NEW SODIUM STEARATE

CONDORSKIN G is a sodium stearate characterized by graphite based inorganic additive, able to increase the performance of the subsequent deformation operations.

The organic component ensures high performance in drawing and skinpassing of wire rod (carbon steel or stainless steel) thus allowing the adhesion of its particular graphitic component, enriching oils used for subsequent operations of hot & cold forming. It increases significantly the performances in molding processes, in case of severe deformation, etc.

Finding main use in the production of fastener, it is proposed as the main antagonist of common additives based on molybdenum and sulfur, maintaining its chemical inertia towards both the metal surface, as it is simply deposited physically, as well as the entire production cycle.

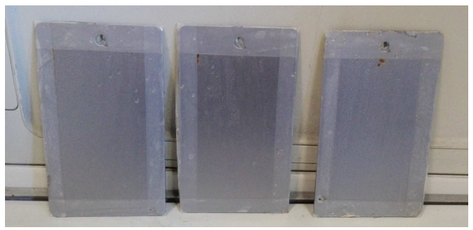
CONDORLUBE TP 120

CONDORLUBE TP 120 is a new synthetic based protective agent for carbon steel surfaces.

Compared to products of same series, already present in Condoroil range of products, Condorlube TP 120 has the characteristic to provide the surface with the highest corrosion resistance.

In particular, with a residual of 1-1,5 g/m² of CONDORLUBE TP 120 the following results are obtained :

Salt spray fog :	24 h with oxidation < than 5%
Humidostat:	40 cycles with oxidation < than 5%



CONDOROIL GROUP
THE SUPPORTABLE CHEMICAL

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ISSUE 023 **November 2016**

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NEW COLLABORATION

ROMANIA: SATEC

SATEC

Last October 2016 Condoroil started a new collaboration with SATEC Company of Mr. Alessandro and Mrs. Mihaela Seghezzi for the Romanian market. SATEC has been active on the Romanian market for over 10 years and knows the market in our target sectors. Despite Condoroil operates in Romania for about 4 years, we are sure that having a local partner, will help CONDOROIL in searching for new customers

USA: CROWN TECHNOLOGY

CROWN TECHNOLOGY Inc.

CONDOROIL CHEMICAL recently signed with **CROWN TECHNOLOGIES** US an agreement for the production and distribution of its chemicals for the field of metallurgy.

CROWN TECHNOLOGIES is a company manufacturing chemicals for metal surface treatment and has a leading position in pickling of carbon steel.

In particular, in this specific sector **CROWN TECHNOLOGIES** presents a full range of proposals ranging from the supply of innovative pickling inhibitors, whose production is done by utilizing amines synthesized in house by the company, to the provision of recovery and regeneration technologies.

In the recovery field, **CROWN TECHNOLOGIES** also takes care of the withdrawal, reconditioning and trading of ferrous sulphate. For this product, Crown has achieved second place in the US market for volume of handled material.

FAIR EUROBLECH: HANNOVER October 25-29

It was held in October, EUROBLECH trade fair in Hannover (D) and CONDOROIL for the first time exhibited with its own stand.
The fair was an opportunity to officially present Condoroil new production of paints for coils.
With a detailed reproduction with 3D printer it was also presented the new ELECTRA CLP line for the electrolytic pickling of stainless steel coils which joins the well-established series of units developed since 2000 for the electrolytic pickling in continuous of tubes, bars and profiles.
Finally, a large space was given to innovations in sheet metal forming and, among these, we remind CONDORLUBE TP 120 that combines excellent lubricating ability and exceptional anti-corrosive characteristics.

EURO BLECH 25. - 29.10.2016

ELECTROLYTIC PICKLING TUNNEL FOR STAINLESS STEEL TUBES

On behalf of Siderinox, leading manufacturer of stainless steel welded pipe, located in Morimondo (I), Condoroil Stainless implemented a number (3) of plants electrolytic pickling ELECTRA series.

The welded tube, after checking with Eddycurrent, passes inside the treatment tunnel in which its surface is subjected to alternately anodic and cathodic currents that carry out the pickling action.
In particular, the anodic section allows to solubilize both the oxides and the depleted chromium layer and to passivate the material, while the cathodic section helps the mechanical removal of the oxide producing an evolution of gas about 3 times higher than the anodic section
The pickling tunnel is kept full of liquid due to the continuous supply of working solution.
This is maintained at the correct working temperature through the use of a cooling circuit and a thermoregulated electrical resistance
The pickled tube is cleaned in the tunnel through three different stages of rinsing with water, fed and maintained in countercurrent.
Also in this case the presence of water in the rinsing tunnel is ensured and guaranteed by special booster pumps.
The emissions are essentially composed of hydrogen and oxygen, an adequate suction will ensure the rapid dilution and evacuation of the same and a washing tower will eliminate any trace of any acid entrainment
We have also included in the cycle a reverse osmosis unit TAOS to keep clean the last rinse tank, thus avoiding the risk of having stains on the tube. The Taos unit also keeps clean water from the fumes washing tower avoiding its periodical replacement.

ELISA LONGHINI: A SHORT BIOGRAPHY OF HER STUDIES

I obtained a degree in Chemical Sciences at the University Ca 'Foscari of Venice specializing in the dating of paintings through the chemical recognition of pigments, binders, resins and study of multispectral images.
The study for the master's thesis was carried out at the University of Antwerp in the department of materials chemistry.
The aim of the thesis was to test and improve the set-up of two mobile scanners MACRO-XRF instrument for noninvasive mapping of the pigments in painting.

The inorganic pigments can in fact be identified by detecting for fluorescence-X of the characteristic chemical element that constitutes them. The potential of the two scanners (M6 Jetstream of Bruker and AXIL scanner, designed by the University of Antwerp) have been observed and studied by changing some basic parameters step size, time per pixel and detector geometry. When found the best set-up, this was exploited to obtain significant quantitative data: calculation of sensitivity and limit of detection of each element-marker detected in the analyzed pigments.
The AXIL scanner was then used to study the Rembrandt painting "Saul and David".
The union of 20 scans came up with the final image of the painting and made it possible to study the modus operandi, the pigments used, the artist regrets, any renovations, the recognition of the cobalt used as a pigment (blue enamel) or drier and the presence of another framework hidden below the visible picture surface

A subsequent internship at KIK-IRPA (Brussels) allowed me to broaden the range of analysis for the identification of inorganic and organic compounds to the art through Electron Microscope, μ-XRF, Raman, FTIR and Py-GC / MS.
My studies are an example of how the study of works of art, seemingly far from the scientific, can be studied with an experimental approach bringing concrete, objective and irrefutable data.
This method in particular is used to expose fakes and copies of author, then making a great contribution to the history of our cultural heritage.

NEW SYSTEM OF NEBULIZATION

FINESTFOG®

To meet the increasingly high demands of painting lines, in terms of paint adhesion and corrosion resistance of the product, CONDOROIL CHEMICAL has signed an agreement with FINESTFOG Ottobrunn (D) for the exclusive distribution in the Italian market , of their atomization units.
The FINESTFOG units are proposed by CONDOROIL for the application, as the last treatment stage no-rinse, of silan based passivating products that act creating of bonding bridges between sheet metal and paint and a compact watertight protective layer to moisture.
Main products employed in the units are CONDORCOAT 42 and CONDORCOAT 91, of which the latter combines the presence of the silane with particular compounds based on titanium and zirconium.
The action of the formulations is guaranteed, precisely, with the use of FINESTFOG units.
The nebulization of the formulations at a concentration of 0.5% in demineralized water in fact allows to have very low consumption, while depositing always a new solution, and also to reach the most hidden areas.
The FINESTFOG single-medium nozzle is the heart of every FINESTFOG system. Crafted from high-quality stainless steel and hand finished, each nozzle is engraved to identify it as designed and produced exclusively by FINESTFOG. The ingenious inner workings and a special bore together result in the unique atomization pattern. Without carrier air and almost noiselessly, the nozzle atomizes water into finest aerosols capable of being rapidly taken up by the air. A check spring reliably prevents water dripping. An optional swivel joint points the nozzle into any direction. Before installation, FINESTFOG advisors will analyse and compute the humidification performance required. Depending on the size and height of the room and the available space, they will recommend one of four specialized nozzles. The different nozzle inserts and nozzle bores ensure that humidification performance will be precisely tailored to requirements. FINESTFOG high-pressure nozzles operate as successfully in low-ceilinged open-plan offices as in lofty production halls or integrated in powerful ventilation systems.
The FINESTFOG control unit can be customized for every application. The choice ranges from a PLC and display all the way to a Siemens SPS S7 1200 with a colour Siemens Comfort touchscreen. The fully automated FINESTFOG Premium Single and Twin (below right) serve one or two zones and can handle up to 250 l/h of pressurized water. The FINESTFOG Premium 7 (below right) serves up to eight zones and can handle up to 700 l/h of pressurized water. The FINESTFOG control unit also has the capability to integrate a reserve osmosis system.

CONDORLUBE WF22
POLIMERYC BASED PRODUCT FOR STAMPING

CONDORLUBE WF 22 is the new innovative product studied by Condoroil for the chemical preparation to stamping of bolts, which guarantees less wear of the tools and therefore remarkable economic saving related to tools, replacement operation and relevant production stops.
CONDORLUBE WF 22 is very simple to use
The wire rod preparation with CONDORLUBE WF 22 can be done on the wire coil or directly in line
Subsequently, stamping must be carried out after drying of at least 1 hour in air or, in alternative, accelerated in oven at temperature to be determined.
Using CONDORLUBE WF 22no chemical reaction takes place but only a physical deposition. Therefore, in order to maintain the bath, it is enough to restore the mixture established in the starting phase
CONDORLUBE WF 22 concentration in water changes according to the reduction or forming which is done on the piece to stamp or form
For optimum results, the wire to be treated in CONDORLUBE WF 22 must be free of oxides and oils/greases ;
The presence of metallic dust and dirt in general, or the presence of rinse water, contaminated by the pickling, on the material to be treated in CONDORLUBE TF 22, adversely affect the life of the product
The use of a polymeric lubricant sees its mains use in the mechanical industry where the request for a minimum residual – pre-coat and polymer - can be an important assessment parameter in the choice of the pretreatment cycle to be used
Material to treat in CONDORLUBE WF 22 cannot have sharp edges by machining, if these were present it is necessary to proceed, in the case of carbon steel, with a double conversion system.

- Microcrystalline phosphatic conversion based on metal chemism of alkaline earth metals in order to manage, in an extremely wide range of use, the weight of the phosphate coating, its composition and its crystallography
- Amorphous phosphatic conversion where an iron phosphate coating acts as an anchoring between the metal surface and the polymer coating and protective barrier of the surface of the drawn wire rod

Here are some examples of application.

Different phosphate/soap-polymer

Wire rod with CONDORLUBE WF 22

Drawing with CONDORLUBE WF 22

After treatment with CONDORLUBE WF22