



# Lechsyst Hydro

## Case History

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## The new water based coating solution for Industry



**New reliable and quality painting cycles**

**Safe and productive painting process**

**Solid, metallised and pearled finishes**

**Primers and fillers for the complete painting cycle**

**Thousands of colours**

**Specific technical support**



**first in hydro technology**

**Lechler Tech is even more modern now!**

A new technological concept including innovative industrial production and painting systems, with a product range defining new performance frontiers for the water based generation.

**For Industry... wherever paint matters!**



**Wherever paint matters!**



**Wherever paint matters!**

*Lechler for industry is addressed to industrial enterprises who, though their manufactured paint, would like to add a competitive product to the market with excellent final result, resistance and lasting performance, coupled with continuing research of new solutions.*



# Lechsyst Hydro Case History

## HELMETS: PRODUCTION AND PAINTING



**INITIAL SITUATION**  
The Customer used solvent products with a daily consumption of about 300 kg corresponding to about 150 kg of V.O.C. emissions.

**REASON FOR REPLACING**  
Authorisation to open a new establishment, dependent on the drastic reduction of the VOC emissions.

**LECHLER PROPOSAL**  
Replacing of the solvent basecoats with the water based product, Hydrocoat Helmet, deriving from binders YD 925 and YD 927, application of decals and finishing with UV clearcoat.

**RESULT**  
Very good finish both for solid and for metallised basecoats. Good adhesion of decals and UV clearcoats.

**PRESENT SITUATION**  
The actual production of helmets demands the daily consumption of about 50 kg of waterborne basecoats with a V.O.C. emission of about 10 kg. That is to say a 70% reduction of daily solvent emissions.

## PUMPS BUILDING AND PAINTING



**INITIAL SITUATION**  
The Customer used a nitro-combined product (theoretical yield 6 m<sup>2</sup> at 25 micron). With a 200 kg daily consumption (VOC 734 g/l mixture with V.O.C. emissions of 150 kg).

**REASON FOR REPLACING**  
Need to reduce the VOC emissions and to remove within the working departments flammable products (labels with flames) and demand more yield in application for products used.

**LECHLER PROPOSAL**  
Finishing with direct application on substrate with Hydrocyl 2K Grip YD 143.

**RESULT**  
Excellent look with a glossy finish. More than a 130% product yield.

**PRESENT SITUATION**  
About 50% of the production will turn to the water based system in the next few months (with a 80% VOC reduction).

## PAINTING PLASTIC HOME ITEMS



**INITIAL SITUATION**  
Plastic items painted with solvent products with different finishes.

**REASON FOR REPLACING**  
Problems with plastics due to solvent aggression with a high percentage of unused pieces.

**LECHLER PROPOSAL**  
Base 1K Hydrocoat Motive YD 903 with direct application on the substrate.

**RESULT**  
All the problems of substrate absorption have been definitively solved. Yield has been also improved with little waste of material.

**PRESENT SITUATION**  
All production is painted with LECHLER water based coloured base coats.

## PAINTING FOR ARTICLES FOR HOME AND MOTORCYCLES



**INITIAL SITUATION**  
The customer used solvent products with a daily consumption of about 50 kg of basecoat corresponding about to 32,5 kg of solvent emission into the atmosphere.

**REASON FOR REPLACING**  
Necessity of reducing the VOC emissions and possibility of guaranteeing the utilisation of water based products and an added value the painted product.

**LECHLER PROPOSAL**  
Hydroplast Dualcoat Y 267 fillers and Hydrocoat Motive YD 903 with Motive WB Clearcoat YD 850 or Hydroplast Satin YD 947 finishes.

**RESULT**  
The filler has been a success and the basecoats and the finishing have obtained very good aesthetic results with very good adhesion and mechanical performances.

**PRESENT SITUATION**  
The customer has proposed the process with LECHLER products to his purchaser to be homologated and introduced into their specifications. He will shortly use the filler Hydroplast Dualcoat for the painting of motorcycles with a brand leader in the field.

## PRODUCTION AND PAINTING OF GAS/OIL BARRELS



**INITIAL SITUATION**  
The customer builds steel barrels. Their painting had been commissioned to external companies.

**REASON FOR REPLACING**  
Set up of an internal painting line. To avoid the usage of solvent paints, the customer has requested water based products with low V.O.C. emission.

**LECHLER PROPOSAL**  
Primer Hydroprimer 1K YD 101. Hydrolack 1K YD 116 solid colour topcoat.

**RESULT**  
A call for tenders has been organised among different possible painting suppliers. The Lechler painting process has resulted in an excellent performance both in finish and application.

**PRESENT SITUATION**  
The Customers used about 1500 kg of Hydroprimer. YD 101 + 1500 kg Hydrolack YD 116 top coat each month.

## PRODUCTION AND PAINTING OF PLASTIC SWITCHES/PLATES



**INITIAL SITUATION**  
Use of metallic, pearled solvent based topcoats.

**REASON FOR REPLACING**  
Strategic choice of the company to gradually turn the solvent processes into water based cycles and the eradication of problems concerning environment legislation.

**LECHLER PROPOSAL**  
Replacing of the solvent enamels/basecoats with water based products belonging to our Water Base product range.

**RESULT**  
The excellent aesthetic results, application and very good yield have caused an acceleration of the project of turning to a water based product line with a specific painting process.

**PRESENT SITUATION**  
Total evaluation of costs-benefits deriving from the introduction of the water based painting products brought a global saving calculated at about 5%.

## PRODUCTION OF WOOD ARTICLES FOR FURNITURE



**INITIAL SITUATION**  
Painting with solvent products.

**REASON FOR REPLACING**  
Development of a new line of bedrooms for children, which has been conceived painting with water based products.

**LECHLER PROPOSAL**  
Finishing with Hydrocyl 2K Matt YD 142 solid colours.

**RESULT**  
Presentation of a line of furniture for children to the market, with the added value of the utilisation of products with low impact on the environment.

**PRESENT SITUATION**  
All production is completed with LECHLER topcoats Hydrocyl 2K Matt YD 142.

## PRODUCTION AND PAINTING OF STEEL MACHINES



**INITIAL SITUATION**  
The Customer used an Epoxylack Effect 29179 for the entire production.

**REASON FOR REPLACING**  
The tests on products have been conceived only for exploring new technologies with low impact on the environment and havenot been conceived on technical needs or to comply with any legislation requests.

**LECHLER PROPOSAL**  
Hydropox 2K Str YD 179 finishing.

**RESULT**  
Physical/Mechanical resistances better than the solvent product, easy application and the possibility to apply the paint in the plant without the utilisation of active carbon filters.

**PRESENT SITUATION**  
All the production is with LECHLER Hydropox 2K Str YD 179 topcoats.

## PAINTING OF PLASTIC ITEMS FOR FURNITURE



**INITIAL SITUATION**  
Production with solvent products.

**REASON FOR REPLACING**  
Problems with plastics due to solvent aggression with high a percentage of manufactured waste.

**LECHLER PROPOSAL**  
Hydroplast Matt YD 204 topcoat.

**RESULT**  
All the problems related to the substrate and waste reduction have been definitely solved.

**PRESENT SITUATION**  
All painting of the articles with plastic substrates are completed with LECHLER Hydroplast Matt YD 204 top coats.

## PAINTING OF URBAN TRANSPORT VEHICLES



**INITIAL SITUATION**  
Painting with solvent products in body shops that are not properly equipped.

**REASON FOR REPLACING**  
The company is within a big metropolis and the transfer to products with low impact on the environment is an absolute necessity.

**LECHLER PROPOSAL**  
For metallised colours: Hydroprimer 1K YD 101 basecoat Hydrocoat Motive YD 903 and YD 850 top coat.  
For solid colours: Hydrocyl 2K YD 155 topcoat.

**RESULT**  
Dramatically reduced solvent emissions with a 50% saving on the painting processes' application time, energy consumption and working costs.

**PRESENT SITUATION**  
The customer used about 8.000 Lt of water based product every year.

## PRODUCTION AND PAINTING OF ROOF PANELS



**INITIAL SITUATION**  
Production of PA items. The painting had been commissioned to external companies.

**REASON FOR REPLACING**  
Production with internal painting. Authorisation to open a new production area, depending on the dramatic reduction of the emissions into the atmosphere.

**LECHLER PROPOSAL**  
Solid colours Hydrocyl 2K Matt YD 142 topcoats.

**RESULT**  
The painted manufactured products have very good finish with very good outdoor resistance.

**PRESENT SITUATION**  
The entire production is now completed with LECHLER top coats Hydrocyl 2K Matt YD 142.

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Quality, production efficiency, finish and performance with total respect of the Environment are the characteristics distinguishing the wide range of products proposed by Lechler Tech which has been conceived for the Industry future. The product range, with painting processes with water dilutable products has been conceived with a total ECO-RESPONSIBILITY project.

The aim, which has been achieved are investments in the technological development and high technological products at disposal of users, with total respect of the Environment and the workers health.

The raw materials used in the water based products are selected considering, as well as the performance, the very small risk both for man and for the environment. In particular, the reduction of emissions into the atmosphere (V.O.C. Organic Volatile Compound) if compared to standard solvent cycles could be more than 90%.

In order to support the users of the water based Lechler painting processes and in order to focus on this new eco-responsibility, an identification brand has been conceived: the ECO-Logo, which is offered free of charge, to put on materials and documents and manufactured products painted with the Lechler Tech painting processes.



The ECO-Logo has been conceived to identify and communicate to the final user the added value included in the purchased product.

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