

Automation Technology

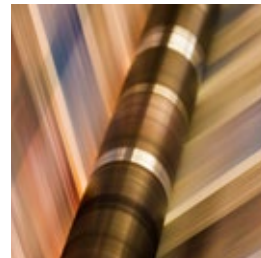
Optimizing transport processes by sprayable elastomeric surface coatings - Assembly, Handling, Feeding, Separation, Robotics



MetaLine® Series 500/700

Durable protection against scratches, marks, abrasion, noise & discoloration

with FDA conformity



Feeding optimization: silent, gently and safely . . .

Process Technology

MetaLine® Series 500 / 700

Duroplastic special coatings for solving handling problems in feeding and assembly technology

For almost 60 years MetaLine has been working with surface protection coating materials. Our procedures lead in assembly automation and are recommended by all major European OEM manufacturers...

MetaLine Series 500/700 consists of two elastomeric coating systems with feeding properties that are **individually adapted to the conveyed parts**. Why? Because a dry silicone ring requires different coating properties than an oily screw or a delicate plastic cap – whether in conveying, gripping, clamping or mounting!

During application, the following parameters are systematically aligned:

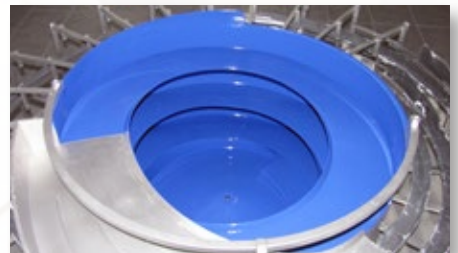
- Hardness 60 to 98 Shore A
- Stiction *my(0) 0.1 to 0.7 slippery to slip-resistant*
- Layer thickness 0.5 mm to 20 mm
- Thickness profile *E.g., partial bowl base reinforcements*
- Surface structure *Mirror-smooth, velvety profiled or grained*
- Electric. conductivity *Electrically insulated till anti-static*
- Color and contrast *White to black (only glossy possible)*

This variable adjustment optimizes the conveying speed, prevents scratches and minimizes waste. A unique and outstanding MetaLine **quality feature**: No other lining method can influence surface properties more directly or precisely.

MetaLine – a milestone in the **transport optimization** of bulk solids!



MetaLine Series 500 – extremely variable, for the highest precision and thinness or structured coatings up to approx. 1.5 mm layer thickness, respectively

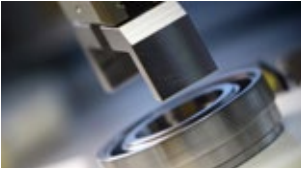


MetaLine Series 700 – extremely wear and impact-resistant for layer thicknesses from 1.5 mm, and simpler component geometries

MetaLine coatings know exactly what conveyed parts require ...

Wear reduction
Scratch protection
Corrosion control
Non-stick function
Service life extension
Shock absorption
Noise deadening

Application Areas



MetaLine coatings for the automation industry

Fast and cost-effective transport process optimization



- Vibratory bowl feeders
- Linear vibratory conveyors
- Spiral elevators
- Steep belt conveyors
- Multi-jaw grippers
- Vibratory hoppers
- Workpiece holders
- Tool pads
- Infeed chutes
- Ultrasonic welding frames
- Vibration welding frames
- Load hooks
- Workpiece magazine
- Drive rollers
- Hold-down devices
- Clamping tools
- Screw conveyors
- Dosing devices
- Tube conveyors
- Weighing scales
- Blister packaging machines
- Parts washers
- Assembly supports
- Pneumatic tools
- Stainless steel wire mesh trays
- Diabolo rollers
- Conveyor belts
- Guideways

FDA Conformity CFC 177.1680 (Title 21)

FDA Conformity 175.300-2-E (upon special request)

EU No. 1935/2004

EU No. 10/2011

MetaLine is partner for many "Fortune 500" companies like:

ABB – Agfa – Airbus – Alstom – Audi – BHP Billiton – BMW – Boehringer – Böllhoff – Bombardier – Bosch – Bugatti – Coca-Cola – Continental – Dassault – Delphi – Fairchild – Faurecia – Feintools – Festo – Fiat – fischerwerke – Freudenberg – Gillette – Hewlett-Packard – ITT – Johnson – Kraft Foods – Liebherr – Lufthansa – Kellogg – Krauss-Maffei – Magna – MANdiesel – manroland – Mercedes-Benz – Metso – Nissan – Oerlikon – Pfizer – Playmobil – Porsche – Procter & Gamble – PSA – Schaeffler – Siemens – SKF – Stihl – Swarovski – Thyssen Krupp – Toyota – Tyco – Volkswagen – Wacker Chemie – Wrigley – ZF Friedrichshafen . . .



Vibratory Feeder Bowls

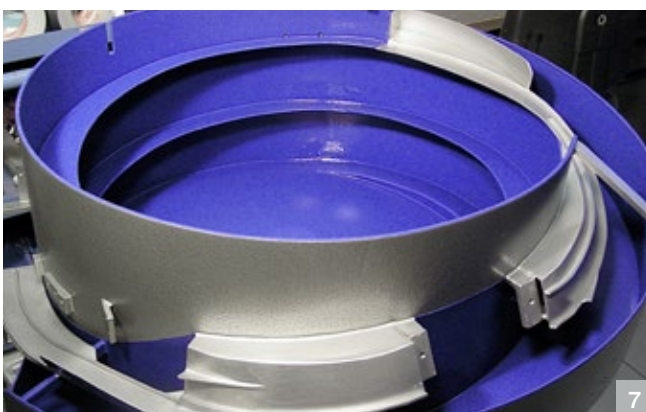
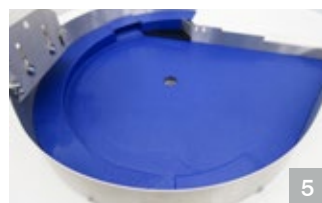
Reference: MetaLine Series 500/700

Sprayable elastomeric coatings for optimizing conveying characteristics and noise reduction.

Series 500: For individually adapting the coating to the parts to be conveyed (e.g., oily, anti-static, non-stick, structured) or for complex geometries and custom tooled equipment.

Series 700: Optimally suited for simple structural bowl designs without complex tooling.

- Vibratory feeder bowls
- Centrifugal feeders
- Stepped feeder bowls
- Cylindrical feeder bowls
- Spiral elevators
- Tee nut feeders



- 1 MetaLine Series 500 – individually adapted to the parts to be feeded
- 2 Optimized noise protection concept thanks to an all-around coating
- 3 MetaLine is coating standard for automated screw feeding devices
- 4 Regularity and seamlessness are the strengths of MetaLine
- 5 No more scratching and marking of sensitive parts to be conveyed
- 6 Without seams, coatings can no longer partially disbond as in the past
- 7 Technical detail solutions no other feeder bowl lining can offer

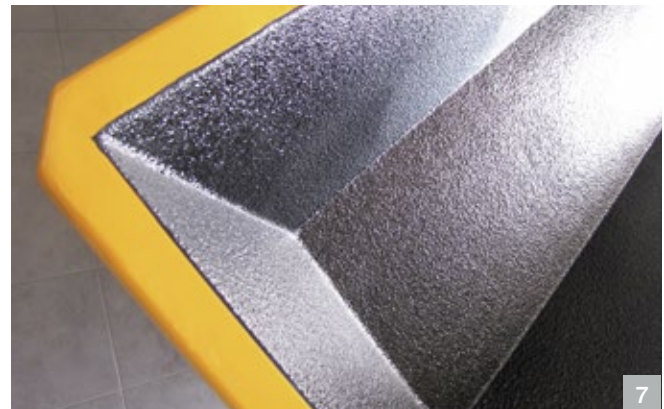
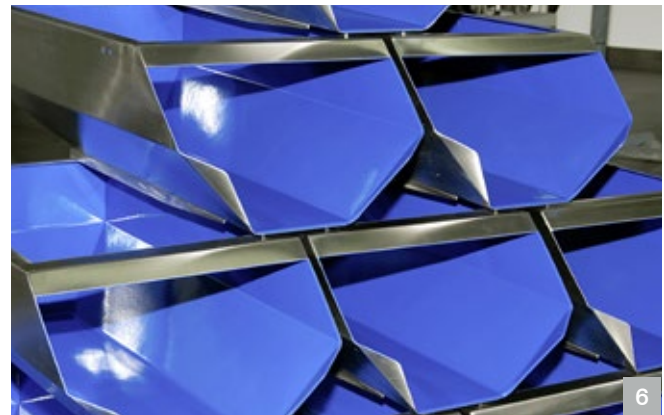
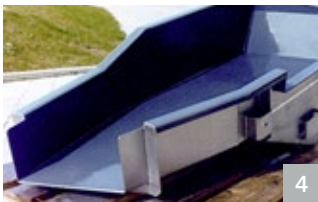
Vibratory Chutes

Reference: MetaLine Series 500/700



Elastomeric surface treatment for lining longitudinal feeders. Parts protection, noise reduction, feeding optimization and general equipment lifetime extension. FDA approval for use in the pharmaceutical & food sector.

- Pipe conveyors
- Chutes / Slides / Trays
- Vibratory trough dosing devices
- Vibrating tables
- Linear feeding lines



- 1 During the elastomeric spray process of MetaLine Series 700
- 2 FDA approval allows the use in pharmaceutical installations
- 3 MetaLine structured surfaces will prevent sticking of oily parts
- 4 For the reduction of high impact forces creating maximum parts protection
- 5 Seamless lining – even on very complex shapes
- 6 MetaLine is Europe's largest OEM coating supplier for automation items
- 7 Resistant up to maximum 120 °C hot parts impacting into the tray

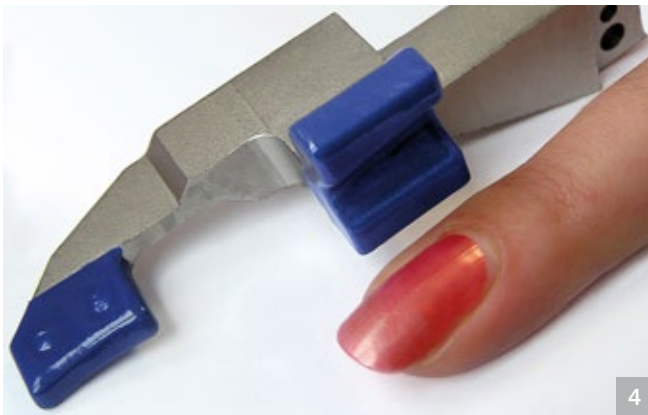
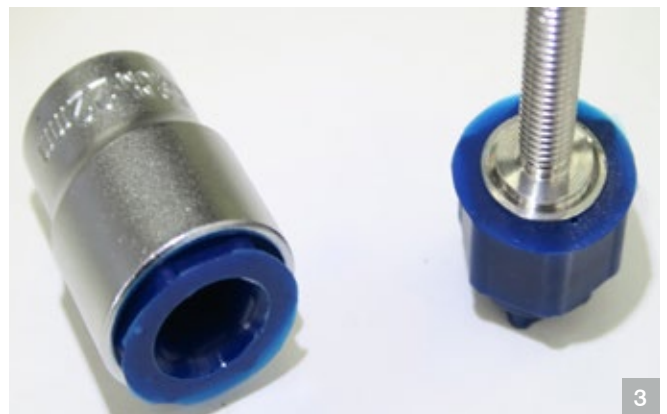


Clamping / Gripping Tools

Reference: MetaLine Series 500/700

Sprayable, elastomeric coatings to protect sensitive parts during the handling process: Scratch protection, slip protection, improving handling safety. Surface friction index up to $\mu(0) = 0.7$.

- Multi-jaw grippers
- Hold-down / clamping tools
- Clamping pliers
- Clamping pads / stops
- Girders
- Steady rests
- Load beams



- 1 Two-jaw gripper with a 2 mm thick protective "skin" avoiding marks
- 2 Part of a coated clamping collet for small delicate plastic parts
- 3 Slip-resistant nut insert to transfer torque without damages
- 4 Elastomeric gripper to hold sensitive tiny metal items
- 5 Coated pressure pads for chassis welding in vehicle construction
- 6 Miniature gripper with a 1 mm thick "rubber lining"
- 7 Hook and gripper in one – nevertheless perfectly protecting ...

Lifting Devices

Reference: MetaLine Series 500/700



Soft touch coatings to improve grip and protect the load. Prevents scratches, markings, imprints or discolorations.

Conform to pharmaceutical and partially food grade specifications in accordance with FDA & EU regulations.

- Load hooks
- Eye hooks
- Forklift attachments
- Lashing straps
- Air cushions



- 1 Slip-resistant and able to withstand high loads – MetaLine 785
- 2 Coated forklift forks reliably fix the load and safe damages
- 3 Hygienic, pharmaceutical and anti-vibrating
- 4 MetaLine – prevents scratches, slipping and chafing
- 5 Protects against moisture penetration and injuries to the belt
- 6 Available in many different tints and signal/warning colors
- 7 Avoids scratching & marking plus secures the loading process

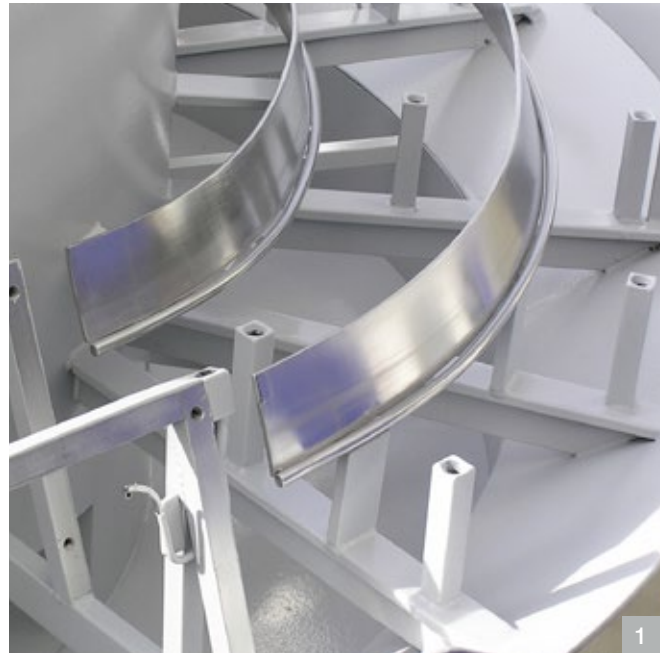


Pharmaceutical / Medical Engineering

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings with FDA 177.1680 (Title 21) conformity. Impact-resisting, seamless, gentle to the parts to be conveyed and sterilizable. Preventing black discoloration to pills. Reduce operational noise.

- Transport containers
- Dosing devices
- Packaging machines
- Feeding trays
- Sampling equipment
- Weighing devices
- Mixers



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- 1 Seamless coatings facilitate cleaning
- 2 Coated NFe filling module prevents black staining
- 3 Separation section being "rubberized" with FDA approval
- 4 Elastomerically coated agitator with non-stick characteristics
- 5 Coated feeding hopper of a food packaging machine
- 6 "Elastomeric" screwfeeder protects sensitive items
- 7 FDA conformity even for 3D-printed plastic parts

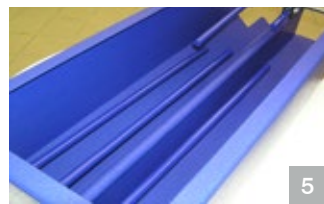
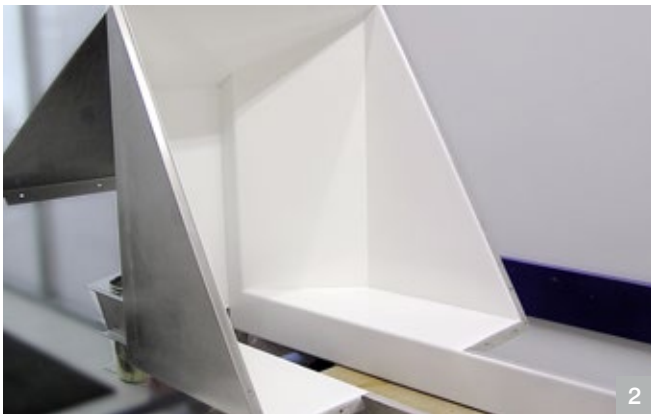
Automation Components

Reference: MetaLine Series 500/700



Sprayable elastomeric coatings for the protection of sensitive surfaces, for scratch protection, feeding optimization, and noise reduction.

- Linear feeders
- Elevators feeders
- Vibration trays
- Vibration hoppers
- End pulley conveyors
- Centrifugal feeders
- Step feeders



- 1 Vibratory hopper with structured coating to prevent oily parts to stick
- 2 Stepped feeder with combined protective/noise reducing lining
- 3 Spiral elevator with MetaLine 590 elastomeric protective coating
- 4 Seamlessly internally & externally coated vibratory conveyor
- 5 Elastomerically lined feeder for pharmaceutical components
- 6 Non-stick coated food conveyor with FDA conformity
- 7 Details of a perfect coating – without any irregularities or sharp edges



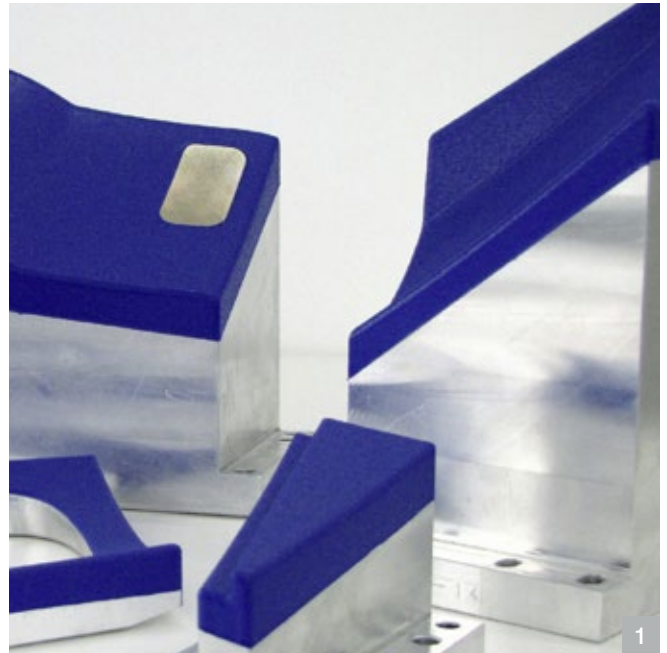
Workpiece Carriers

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings for safeguarding sensitive surfaces and for scratch and marking protection.

Fulfills highest protection demands during the assembly of painted or chromed automotive parts.

- Assembly supports
- Assembly nests
- Transfer systems
- Forging dies
- Sockets / prisms
- Mounts



- 1 Velvet-like structured, rubbery protective coating - perfect cushioning
- 2 Scratch-proof-coated bumper nest made of POM
- 3 Coated assembly nests for chrome-plated vehicle add-on parts
- 4 Suitable for supports made of PE, PA, wood, aluminum, rubber, ...
- 5 2 mm thick elastomerified support for aircraft fuselage
- 6 Coated assembly device for electrical power tools
- 7 Non-scratch standard with all leading European car manufacturers

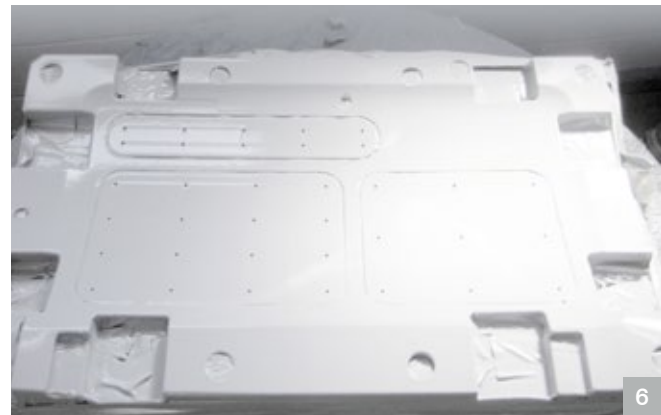
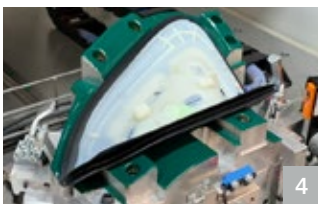
Plastic Welding

Reference: MetaLine Series 500/700

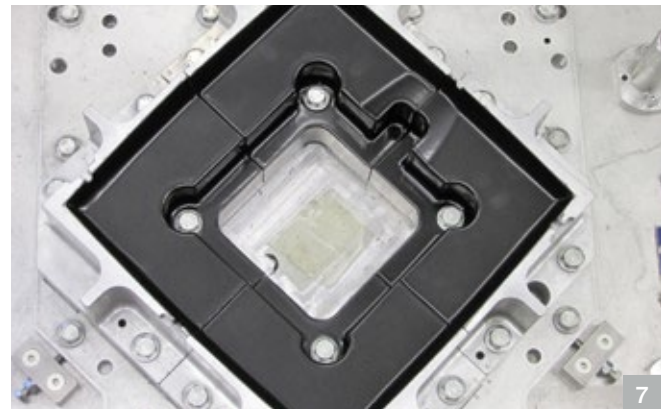


Sprayable elastomeric coatings for the surface protection during plastic welding processes. Precise, true-to-contour, soft and haptic - but nevertheless wear-resistant.

- Ultrasonic plastic welding tools
- Vibration plastic welding tools
- Friction plastic welding tools



- 1 Precisely leveled coating with high static friction of $\mu(0) = 0.5$
- 2 Limousine dashboard tool coated with 1 mm MetaLine 580
- 3 A typical MetaLine application – with love for every technical detail
- 4 Automotive tool coated with MetaLine 590, green, 1 mm thickness
- 5 Coated welding tool for passenger car rear lights
- 6 Variable in hardness, static friction and surface structure
- 7 Much more durable than glued-on plastic or rubber sheets

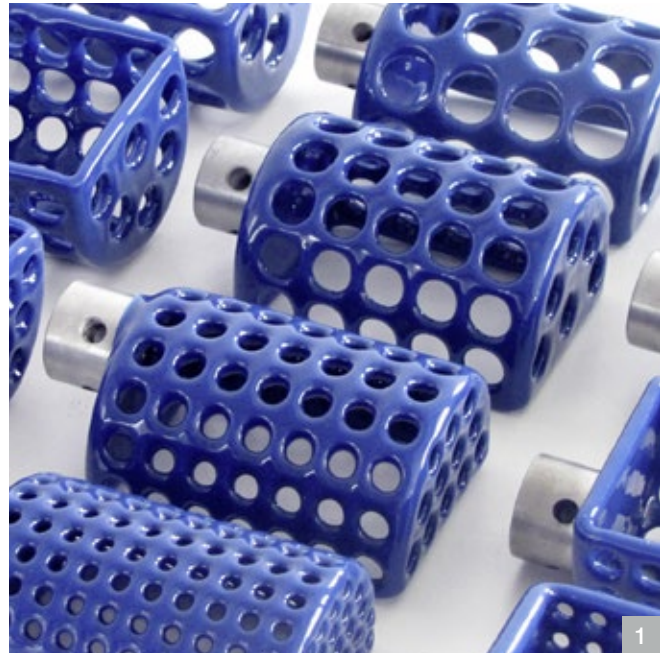


Workpiece Magazines

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings for the protection of sensitive surfaces and providing scratch, mark and slip protection.

- Cleaning baskets
- Tool bins
- Assembly supports
- Display containers



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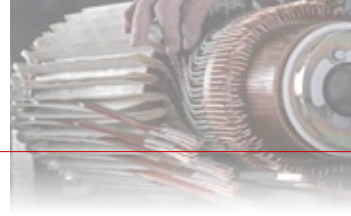


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- 1 Workpiece carrier coated seamlessly with a soft-elastic surface
- 2 Transport rack for brake hoses coated scratch-proof
- 3 Trolley for car parts supply to the assembly line - no damages anymore
- 4 Toolset coated slip-resistantly all over
- 5 Bead blasting magazine coated for continuous re-use
- 6 Washing basket padded out on all sides elastomerically
- 7 Without disturbing edges and corners – MetaLine coatings

Electrical Insulation

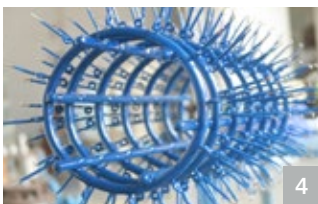
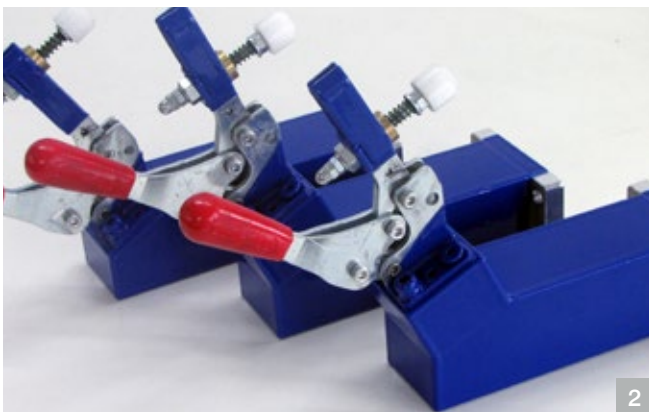
Reference: MetaLine Series 500/700



Elastomeric coatings to be applied by means of spraying and brushing for electrical and thermal insulation. Dielectric strength approximately 5 KV per 1 mm of coating thickness.

Anti-Static versions available upon request.

- Large welding electrodes
- Sensors
- Current collectors
- Control tools
- Submersible motors
- Dip galvanizing frames



- 1 Decorative, seamless, elastomerically – plus permanently insulated
- 2 Coated test plug – protects tester and specimen alike
- 3 The lining thickness influences the final extent of the insulating effect
- 4 MetaLine is suitable for insulating the most complex geometries
- 5 Waterproof, easy-to-clean electrical insulating coating
- 6 Agreeable & safe grip – offers protection against current flashover
- 7 For inspection services MetaLine can be easily "cut opened" and resealed





Protective Covers for Assembly

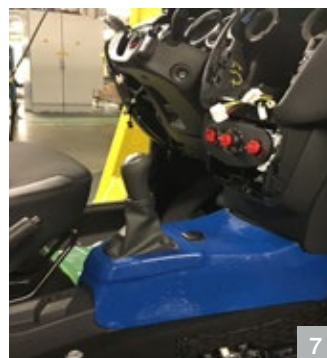
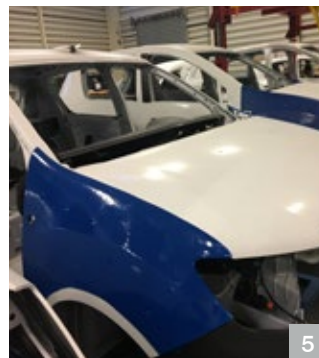
Reference: MetaLine Series 500/700

Sprayable elastomeric coatings to manufacture detachable protective covers for assembly purposes. Very low weight (density 1.05 g/cm³). Mechanically resistant & easy to clean.

NO mold is necessary to produce the protective cover; execution can simply be realized by use of an original vehicle body part.

Individual color codes for easy identification per car model or local assembly positioning can be easily implemented.

- Scratch protection covers
- Impact protection covers
- Door frame inserts

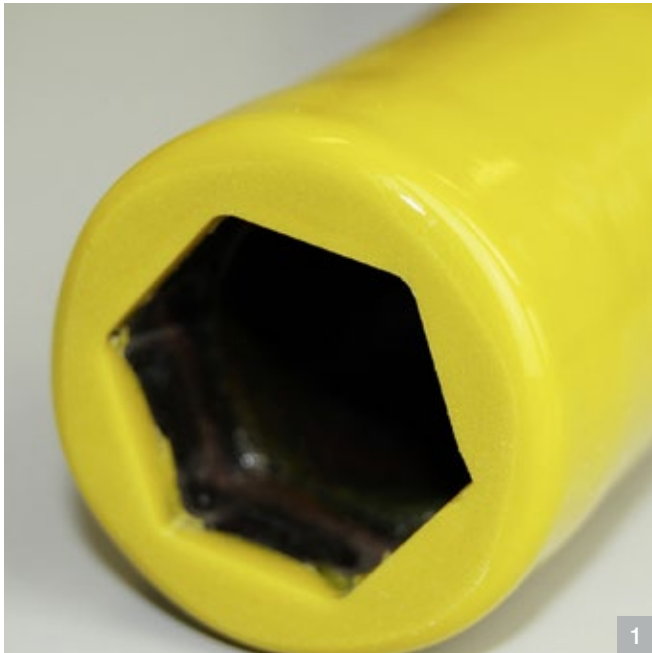


- 1 Protection cover against scratching filling hoses during final inspection
- 2 Self-adhesive or magnet-supported version for rim guard
- 3 Sill protection cover between A and B column (front door)
- 4 Assembly protection for the installation of the door-locking devices
- 5 Protective cover for the front fender (passenger side)
- 6 Impact protection to ease the assembly of the front door
- 7 Protectors for the center console (here for the Renault "Symbol")

Special Tools



Reference: MetaLine Series 500/700



Sprayable elastomeric coatings for the protection of sensitive surfaces against scratches. Superior (non-allergic) haptical properties for wet or oily hands.

Different color codes to avoid danger of tool mix-ups can be integrated.

- Tool handles
- Nuts / bits
- Hood / trunk lid arrester
- Tool extensions
- Indent tools
- Gauges

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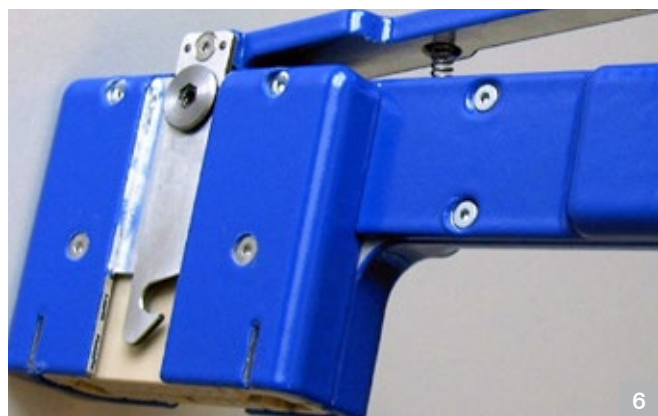
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- 1 Nuts sheathed on all sides elastomerically
- 2 Small tools coated for vehicle passenger compartment assembly
- 3 Thermally insulated, slip-resistant tool holder
- 4 Partially rubber-coated manufacturing tool for noise reduction
- 5 Breaker used by the fire department coated for firm grip
- 6 Test plug for vehicle engine compartments designed scratch-proof
- 7 MetaLine – to secure that each touch remains invisible



Cathodic Dip Painting

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings as non-stick lining in cathodic dip painting (cataphoresis). Very smooth surface characteristics and possibility to overcoat or repair at any time.

In contrast to often used glass-fiber-reinforced epoxy coatings, extremely shock and impact resistant.

- Conveying satellites
- Dip basins
- Auxiliary frames



- 1 During the solvent-free spray elastomerification with MetaLine 795
- 2 Modular 4-layer system for maximum service life
- 3 Details speaking for themselves in terms of edge coverage & smoothness
- 4 A thickness of approx. 1.5 mm provides reliable long-term protection
- 5 Easy to clean and practically free of any real maintenance
- 6 KTL dip basin walls coated with MetaLine 795
- 7 Satellite frame seamlessly coated & insulated all-round

Drive Pulleys / Rollers

Reference: MetaLine Series 500/700



Sprayable elastomeric compounds for the repair of existing linings or complete new roller coatings. Available hardnesses from 60 to 95 Shore A in a seamless quality. End-faces can be covered as well.

- Drive rollers
- Vacuum rollers
- Textile rollers
- Transport rollers
- Pulleys
- Friction wheels
- Diabolo rollers
- Cable drums



- 1 In-situ elastomerization without machine processing
- 2 MetaLine coatings bond to metal, aluminium, FRFP, rubber, ...
- 3 Spraying is the perfect technique for globular or diabolo geometries
- 4 Textile drive rollers with a static friction $\mu_y(0)$ of up to 0.7
- 5 Coated drive roller with superimposed driving toothed wheel
- 6 Wear-resistant non-stick coating on conveyor belt rollers
- 7 MetaLine on paper rollers can be machined to a precision of 1/100 mm



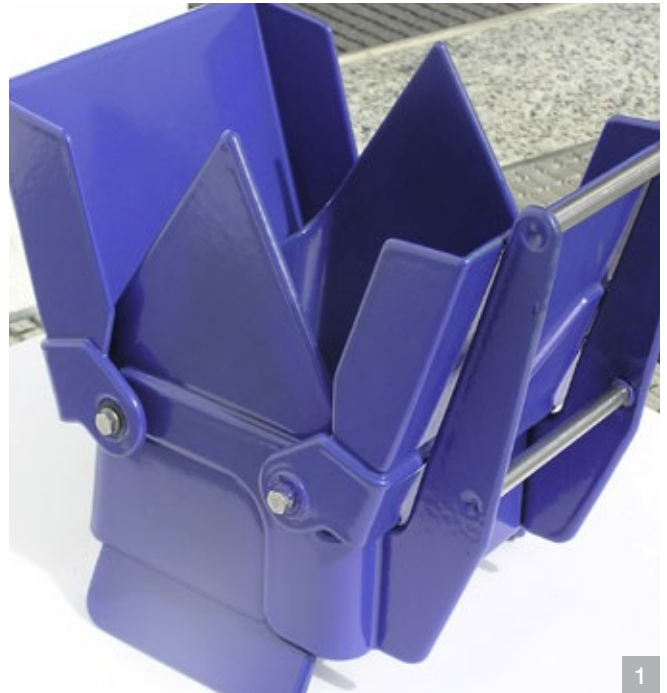


Weighing Technique

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings for the soft, protective lining of weighing elements. FDA conformity and easy to clean/sterilize. Recommended as fracture protection for deep-frozen food. Extremely noise-reducing.

- Multihead scales
- Scale pans
- Crane scales
- Flow scales



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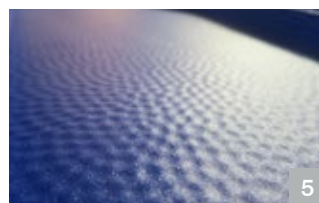
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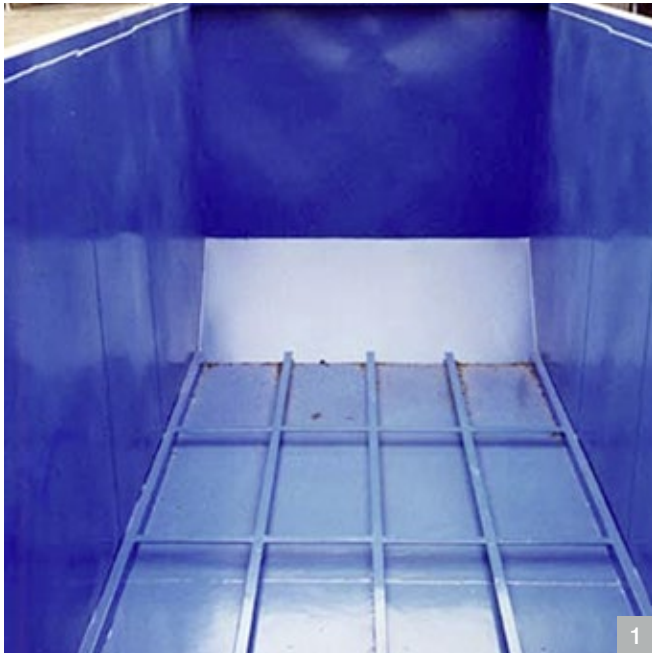


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- 1 Weighing device of a multihead weigher coated with MetaLine 580
- 2 Non-stick, non-break - MetaLine cushions sensitive goods
- 3 Funnel of a weighing station treated with MetaLine in EU 10/2011 purity
- 4 Weighing container coated for slip enhancement
- 5 Sampling device with MetaLine 598 non-stick coating
- 6 Seamlessly FDA-coated anti-slip sockets of a weighing unit
- 7 Coated pads of a forklift truck weighing attachment

Receptacles / Containers

Reference: MetaLine Series 500/700



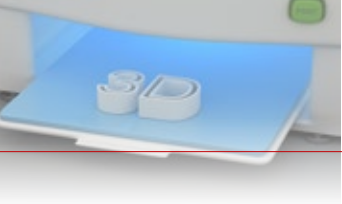
Sprayable elastomeric coatings for thin or thick linings of sensitive storage and transport containers. Impact-resistant, reduces noise development, protects against sticking and solves corrosion problems.

- Boxes / bins
- IBC containers
- Compost containers
- Shipping trays
- Chemical containers



- 1 The elastomeric skin is crack and deformation-resistant
- 2 Seamless, low-friction surfaces optimize cleaning
- 3 Reduces impact forces and their noise development
- 4 Protects surfaces when storing aggressive bio-waste
- 5 Maximum corrosion protection even during direct exposure to salt
- 6 MetaLine coatings adhere to many materials including FRP
- 7 Electrochemical insulation, e.g., to transport titanium rivets in steel bins





Plastics 3D Printing

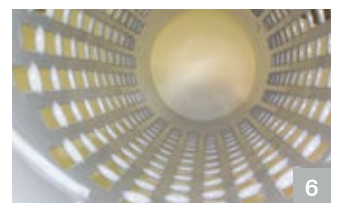
Reference: MetaLine Series 500/700

Printed plastic components show a superficial roughness which excludes their use in areas subject to food and pharmaceutical regulations. Unsuitable coefficients of surface friction and inadequate wear and impact resistance furthermore limit their usability.

MetaLine Series 500 coatings optimize parts regarding their surface quality (porosity / resistance to wear). Compliant according to FDA 177.1680, FDA 175.300-2-E (upon special request), (EU) 1935/2004 and (EU) 10/2011.

Suitable for filaments, among others like:

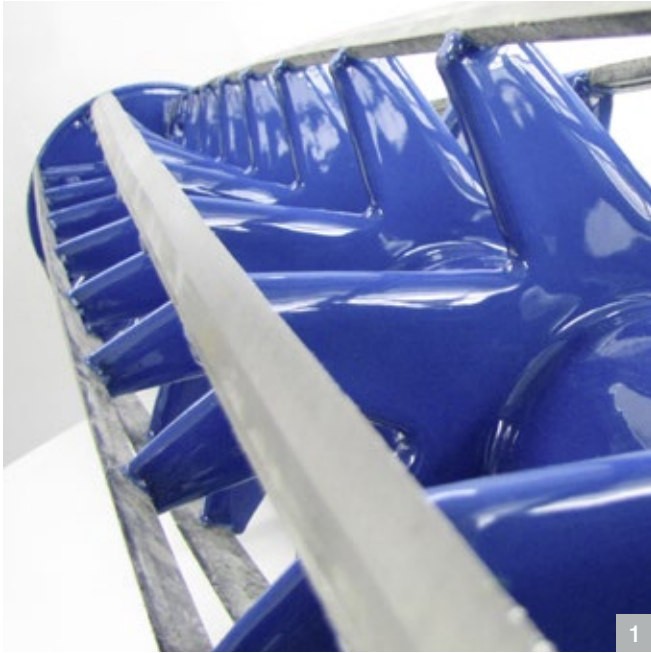
- PLA (Polylactide)
- ABS (Acrylonitrile butadiene styrene)
- PVA (Polyvinyl alcohol)
- PA66 (Polyamide)
- PS (Polystyrene)



- 1 3D print with a friction reduced coating (coefficient of only 0.1)
- 2 After coating – free of pores, smooth and mechanically more resistant
- 3 Expect the maximum from MetaLine - and you still will be surprised
- 4 Pharma-grade and compliant with foodstuff regulations according to EU
- 5 For complex geometries and various component sizes
- 6 Coatable in almost any color shade according to customer request
- 7 MetaLine coatings offer reliability in itself – even for heavier parts



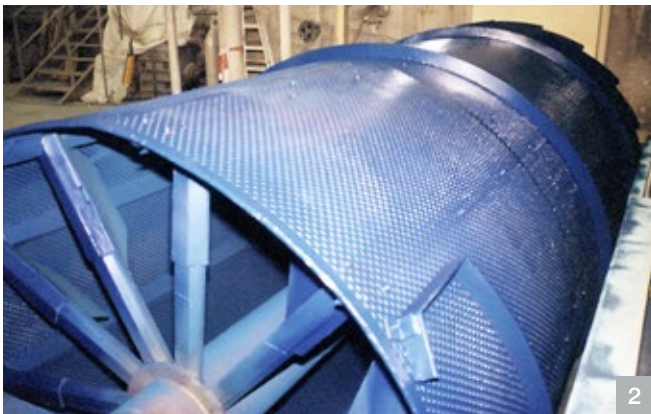
Reference: MetaLine Series 500/700



Sprayable elastomeric coatings to protect (frozen) food against breakage, sticking or discoloration. Easy to clean and improved non-stick properties.

Will not "chip" like paint or plastics due to its rubber-like material behavior.

- Flour mills
- Bottle grippers / tulip sleeves
- Rerouting stations
- Screw conveyors
- Food transport vehicles



- 1 Lined cutter for pet food manufacturing in typical MetaLine precision
- 2 Elastomerically coated washing screen drum for potatoes
- 3 Screw conveyor seamlessly "rubberized" in liquid spray form
- 4 Hopper for grain wear-protected with 4 mm MetaLine 795
- 5 Coated sponge scrapers for cleaning milk tubing / dairy installations
- 6 Food delivery van sprayed with MetaLine 785 to meet hygiene standards
- 7 Wear-resistant MetaLine 598 non-stick "food-lining" for cereals



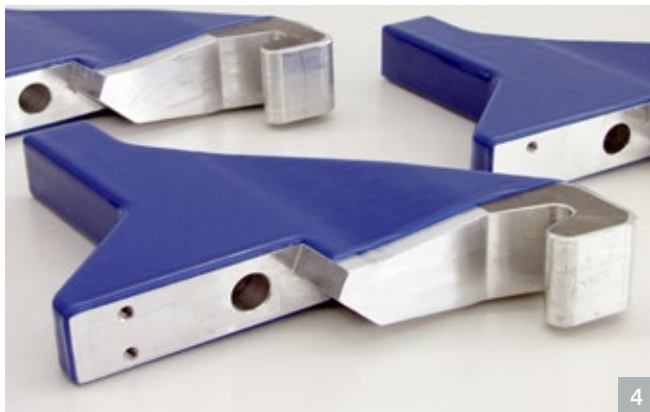
Aeronautical Engineering

Reference: MetaLine Series 500/700

Sprayable elastomeric coatings offering soft-touch surface characteristics. Extremely resilient, wear-resistant and durable.

Passable, impact-absorbing and variable in color. Applicable in any desired film thickness.

- Mounting brackets
- Maintenance equipment
- Engine testing devices
- Check-weights for wing testing
- Pneumatic tools
- Protective assembly covers (protectors)



- 1 To avoid chafing on cable glands - MetaLine's soft surface is N° 1
- 2 For all devices contacting the aircraft - cushioning takes place automatically
- 3 Assembly protection on this hull support for the legendary A350XWB
- 4 Protection always comes first – with MetaLine 785
- 5 Coated rollers for scratch-free lengthy goods handling
- 6 Lifting device – impact-resistant elastomerified with MetaLine 785
- 7 Even control or measuring devices can no longer harm surfaces

Sound Deadening



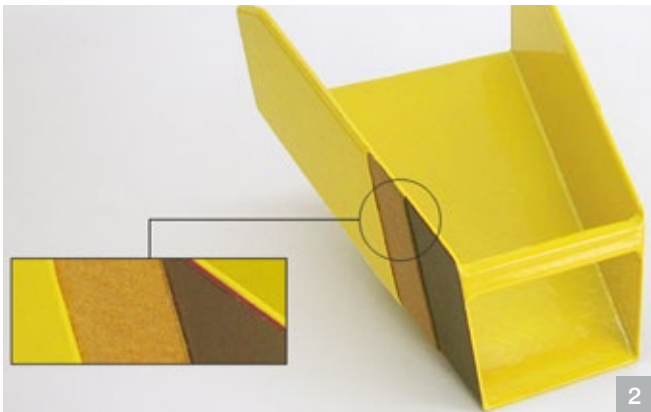
Reference: MetaLine Series 500/700



Sprayable dispersion coating (MetaLine 440) for the external structure-borne sound deadening of thin-walled metal structures. Rest-elastic and decorative.

FDA compliant overlay with MetaLine 500/700 series.

- Transfer funnels
- Hoppers
- Feeder bowls
- Enclosures
- Sheet metal coverings



- 1 External sound deadening – without influencing the internal flow rate
- 2 Sealed, leakproof, dust-free, clean – MetaLine 440/795
- 3 When the part shape becomes a problem, MetaLine helps
- 4 Sounds like plastic – no reverb and no high notes
- 5 Firmly connected to the underground and almost invisible
- 6 Seamlessly FDA-coated and therefore quiet + pharma-compatible
- 7 Difficult geometries are the strength of MetaLine



Engineering Details

Reference: MetaLine Series 500/700

The Coating Materials

The defining functional element of MetaLine surfaces is their seamlessness. The layer thickness is from 500 my and increased depending on the load. Most applications are between 1–2 mm, in order to build up a sufficient and permanently elastic compression memory.

■ **Scratch / Mark protection** – prevents scratches, marks or discoloration. Explicitly recommended for transparent plastics and glass parts

■ **Noise inhibition** – prevents noise even in the beginning instead of a complex enclosure. Structure-borne sound-absorbing properties allow a reduction of up to 20 dB (A)

■ **Increased performance** – speeds up the transport of oily, dirty or dusty parts. Damps down forces and causes smooth sliding

■ **Wear protection** – withstands extreme bumping, dragging and scratching stresses. When comparing identical layer thicknesses, the coatings are at least as wear-resistant as glued polyurethane sheets!

MetaLine adheres to all metals, GRP, polyamide, epoxy, rubber and other materials. Unlike glued-on elastomer plates that often require renewal due to loss of adhesive power, MetaLine polymerizes in the form of the component. There is no tension-related detachment tendency from the base.

MetaLine is a **particle-free system** that does not contribute to the contamination of the transported material – e.g., in contrast to conveying brushes. Cleanable with aqueous cleaning agents; sterilizable in the vaporizing process by means of alcohol (IPA). The application can be done in various shades to ensure contrast formation of camera systems.

MetaLine coatings are considered to be **pharmaceutically safe** by the US authorities under FDA 177.1680 (Title 21) and for dry substances classified as food-safe.

A special form are the **structured coating versions**. These ensure smoother transport, scratch-free delivery, minimize static charge build-up due to the **reduced surface charge** and are even mandatory for manipulating **oily** or wet parts.

Hardness (A.S.T.M. D2240-68)	60-98 Shore A
Density (DIN 53 479)	approx. 1.05 g/cm ³
Tensile strength (A.S.T.M. D412-68)	20-24 N/mm ²
Tear resistance (DIN 53 515)	55–68 N/mm
Elongation at break (A.S.T.M. D412–68)	275–650 %
Bashore resilience (DIN 53 512)	27–63 %
Thermal conductivity (DIN 52 612)	0.2 W/K m
Dielectric surface resistivity (DIN 53 482)	7 x 10 ¹⁰ ohms
Dielectric breakdown voltage (DIN 53 841)	> 5 kV / mm
Temperature resistance (dry)	-50 °C to +120 °C
Abrasion according to Taber (A.S.T.M., D1-044-73 - H-22)	approx. 8.2 mg
Abrasion (DIN 53 516)	55–85 mm ³
Coefficient of static friction (DIN EN ISO 8295)	μ (0) = 0.15-0.7
Approvals International	FDA 177.1680 (21)



Cost Effectiveness & Repair Options

Reference: MetaLine Series 500/700



Great solutions for a small price!

MetaLine automation coatings have been used or recommended by leading European suppliers for many years - a proven, trusted and **safe process!**

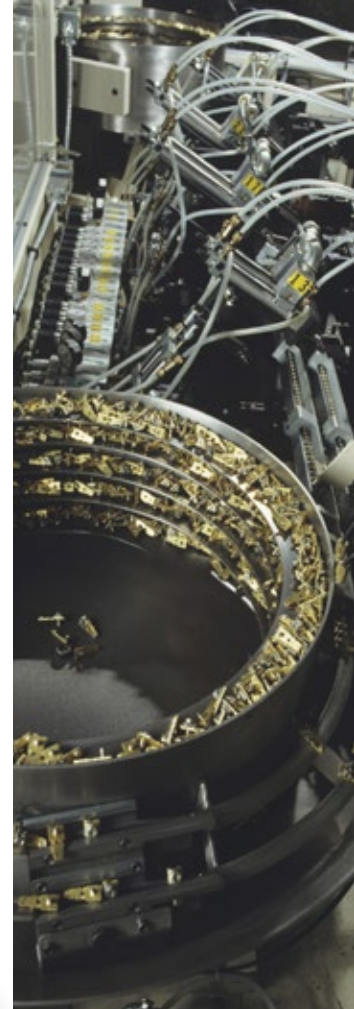
The application is made by experienced **specialists** in a multi-layered process at our southern German headquarters. For this purpose, high or low pressure spraying processes with up to 150 bar pressure are used. Highest attention is paid to the precise contour impression. The components are not exposed to heating. The coatings are machinable after solidification with **cutting processes**. Existing old linings are previously environmentally friendly removed.

For each workpiece, a mixing batch of up to **8 components** and additives is prepared to set the desired conveying properties. The data are determined on the basis of the conveyed material, also by means of running tests, in advance in the house. MetaLine does NOT perform any mechanical adjustment or optimization work on the provided components!

The **self-processing** of MetaLine automation coatings is possible in principle, but requires investments in sandblasting, coating and painting booth technology as well as intensive multi-day training and **experience** in dealing with automation components. The self-application is interesting only for the manufacturers of supply systems.

Standard coatings are carried out within 3 to 5 working days. For a surcharge, **24-hour express production** is available upon request.

The coating services are billed according to effort and/or dimensions. The standard coating of a **vibrating conveyor** with 500 mm diameter and a lining thickness of 1 mm costs about EUR 500. A typical **gripper jaw** causes coating costs of about EUR 45 to EUR 70.



On-site repairs and maintenance. . .

MetaLine has developed the **Series 700 Cartridge Casting System** for local, minor repairs. This provides the user with a material that, when installed, can be used, e.g., for **partial repair** of glued PUR-plate linings. Restart is possible already after 12 hours. Surfaces to be coated must be dry, clean, grease-free and **roughened**. The repair procedure is FDA certified.

A complete repair kit with a caulking gun, roughening tool, cleaning agents, adhesion promoter and 0.23 kg coating is available for less than EUR 350 from the factory.

The method is **not** suitable for coating complete components or repairing large areas.

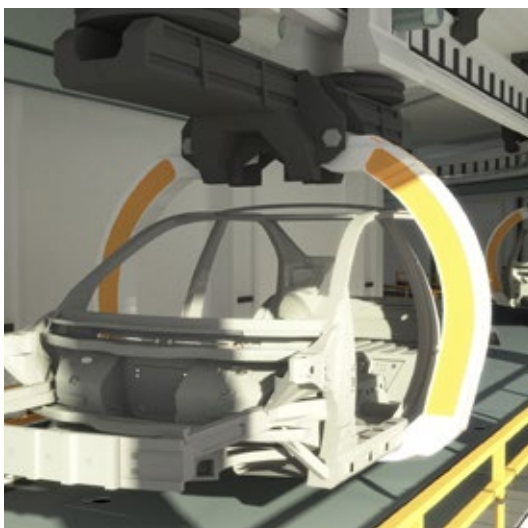


MetaLine Series 700 Cartridge Casting System

Small, handy, fast, cost-effective – the on-site efficient self-processing repair problem solution

MetaLine®.com

surface protection



Corrosion-resistant
Permanently elastic
Abrasion & Erosion-resistant
Sprayable and moldable
Shock-absorbing
Glide-enhancing or
Slip-resistant

You will find MetaLine products being used worldwide in various industries such as:

- Aeronautical Engineering
 - Automation Technology
 - Automotive Manufacturing
 - Ceramics Industry
 - Chemical Industry
 - Concrete Production
 - Conveyor Technology
 - Electrical Engineering
 - Fertilizer Production
 - Foodstuff Processing
 - Glass Processing
 - Metal Foundries
 - Mining Technology
 - Municipal Technology
 - Nautical
 - Occupational Safety
 - Offshore & Marine
 - Packaging Technology
 - Petrochemical
 - Pharmaceuticals
 - Plastics Processing
 - Power Plant Technology
 - Pulp & Paper
 - Recycling Technology
 - Surface Technology
 - Textile Machinery Design
- ... and many more

Simply trust MetaLine's "Engineering Made in Germany"!

