

MetaLine® Series 700 Cartridge-Spray-System

self-applicable, elastomeric spray coating for the
long-term surface protection

... knowing more about coatings!

Power Generation

Pulp & Paper

Marine & Off-Shore

General Industry

Oil & Gas

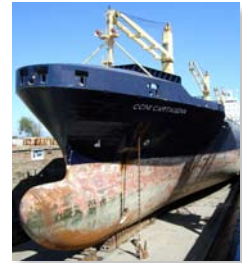
Heating & Ventilation

Mining

Hydro Engineering

Petrochemical

Food Processing




MetaLine®

protect ■ repair ■ save

proven coating systems since 1960

MetaLine® Series 700 Cartridge Spray

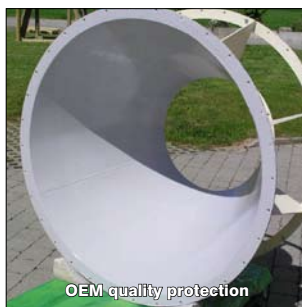
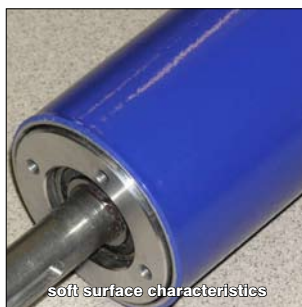
■ Elastomeric wear resistant coating



Wear resistant, solvent-free, 2-component polyurethane spray coating. Designed for a quick and professional self-application process. Perfectly suitable as protective lining or repair compound for:

- **Wear prevention**
- **Shock absorption**
- **Load release**
- **Surface protection**
- **Scratch/mark protection**
- **Sound deadening**

Applied by use of the MetaLine cartridge spray gun - without any manual mixing or weighing processes! With one single operation the material can be sprayed or casted. Very good resistance against low and medium temperature impact. For field and „in-situ“ use.



resistant to abrasion / erosion

permanently elastic

impact absorbing

non-stick characteristics

minimizes cavitation

pharmaceutical / food grade



Material composition

MetaLine Series 700 is a spray applied duroplastic elastomer. The material is distinguished by an unsurpassed **impact resistance** and surface smoothness. Based on its fast processing, the build-up of coating thicknesses between 0.5 and 20 mm - even on vertical surfaces - can be achieved **within minutes**. MetaLine cures at ambient temperatures (no thermal treatment) and can go into service approximately 24 hours after the application. The result is a tough, flexible polyurethane coating with an extraordinary **abrasion resistance** and **durability**.

Scope of operation

It is suitable for all kinds of wet and dry operating equipment inclusive rubber repairs or the recoating of used PUR-linings. A perfect **seamless** problem solution for:

- hoppers / chutes
- screw conveyors
- impeller
- flotation equipment
- classifiers
- rotors
- vibration decks
- centrifuges / fans
- elevators
- dry- / wet mixers
- elbow- / pipe-work
- rollers
- pumps / turbines
- tanks / basins
- filters

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered Trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

MetaLine® 760

■ soft elastomeric spray-coating

Application method	spraying / casting
Application equipment	MetaLine Cartridge Gun
Mixing ratio	2 : 1 by volume
Processing temperature	+40 °C to +60 °C
Hardness (sprayed / casted)	60 / 65 Shore A
Density	1,10 g/cm ³
Tensile strength	20 N/mm ²
Tensile modulus (at 100 % elongation)	6 N/mm ²
Tear strength	68 N/mm
Elongation at break	650 %
Bashore resilience	63 %
Thermal conductivity	0,2 W/K·m
Dielectric surface resistivity	7 x 10 ¹⁰ Ohm
Dielectric breakdown voltage	> 5 Kv/mm
Temperature resistance (dry / wet)	-50 °C to +100 °C / +60 °C
Abrasion	80 mm ³
Coefficient of static friction	$\mu(0)$ = approx. 0.7
Solids content (by volume and weight)	100 %
Working life	7 minutes
Touch dry time	30 minutes
Full Cure (relative to stress)	> 1,5 day
Coverage (per mm film thickness)	1,2 kg/m ²
Chemical description	PTMEG / TDI-polyether



A.S.T.M. D2240-68

DIN 53 479

A.S.T.M. D412-68

A.S.T.M. D412-68

DIN 53 515

A.S.T.M. D412-68

DIN 53 512

DIN 52 612

DIN 53 482

DIN 53 841

DIN 53 516

at 50 °C

at 20 °C

at 20 °C

theoretically

stripped Isocyanate

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

MetaLine® 785

■ medium-soft elastomeric spray-coating

Application method	spraying / casting
Application equipment	MetaLine Cartridge Gun
Mixing ratio	2 : 1 by volume
Processing temperature	+50 °C to +70 °C
Hardness (sprayed / casted)	82 / 85 Shore A
Density	1,05 g/cm ³
Tensile strength	20 N/mm ²
Tensile modulus (at 100 % elongation)	7 N/mm ²
Tear strength	55 N/mm
Elongation at break	380 %
Bashore resilience	45 %
Thermal conductivity	0,2 W/K·m
Dielectric surface resistivity	7 x 10 ¹⁰ Ohm
Dielectric breakdown voltage	> 5 Kv/mm
Temperature resistance (dry / wet)	-50 °C to +130 °C / +60 °C
TABER-Abrasion (H-22, dry, 1 kg, 1000 rev.)	8.2 mg
Abrasion	70 mm ³
Coefficient of static friction	$\mu(0) = \text{approx. } 0.6$
Solids content (by volume and weight)	100 %
Working life	1 minute
Full Cure (relative to stress)	> 1 day
Coverage (per mm film thickness)	1,2 kg/m ²
Chemical description	PTMEG / TDI-polyether



A.S.T.M. D2240-68

DIN 53 479

A.S.T.M. D412-68

A.S.T.M. D412-68

DIN 53 515

A.S.T.M. D412-68

DIN 53 512

DIN 52 612

DIN 53 482

DIN 53 841

A.S.T.M. D1-044-73

DIN 53 516

at 50 °C

at 20 °C

theoretically

stripped Isocyanate

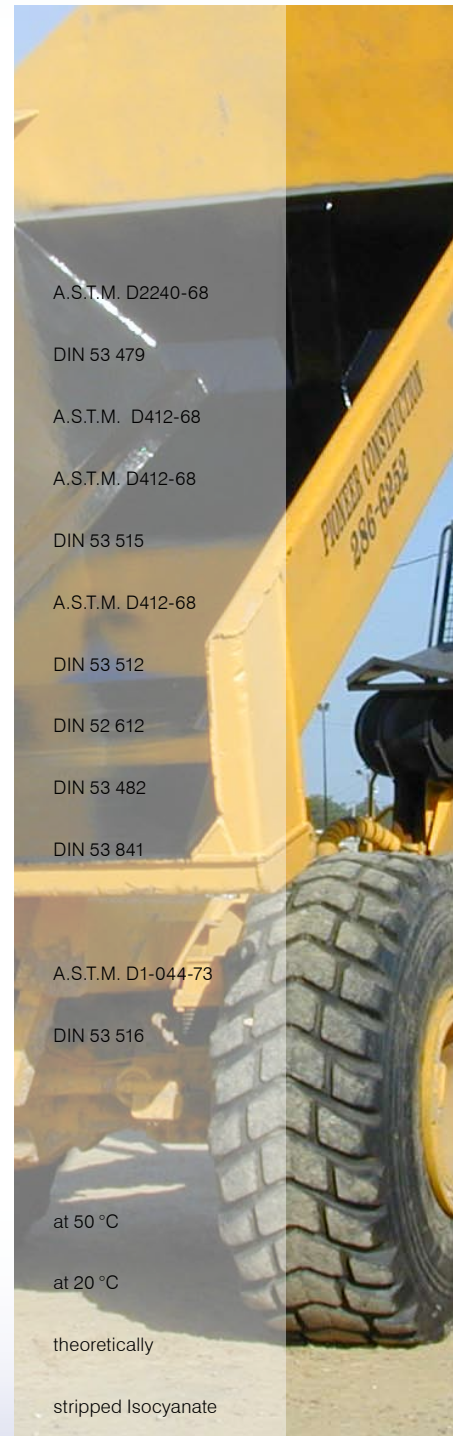
Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

MetaLine® 795

■ medium-hard elastomeric spray-coating

Application method	spraying / casting
Application equipment	MetaLine Cartridge Gun
Mixing ratio	2 : 1 by volume
Processing temperature	+50 °C to +70 °C
Hardness (sprayed / casted)	95 / 98 Shore A
Density	1,05 g/cm ³
Tensile strength	24 N/mm ²
Tensile modulus (at 100 % elongation)	13 N/mm ²
Tear strength	68 N/mm
Elongation at break	275 %
Bashore resilience	27 %
Thermal conductivity	0,2 W/K·m
Dielectric surface resistivity	7 x 10 ¹⁰ Ohm
Dielectric breakdown voltage	> 5 Kv/mm
Temperature resistance (dry / wet)	-50 °C to +130 °C / +60 °C
TABER-Abrasion (H-22, dry, 1 kg, 1000 rev.)	10.5 mg
Abrasion	
Coefficient of static friction	$\mu(0) = \text{approx. } 0.2$
Solids content (by volume and weight)	100 %
Working life	1 minute
Full Cure (relative to stress)	> 1 day
Coverage (per mm film thickness)	1,2 kg/m ²
Chemical description	PTMEG / TDI-polyether



A.S.T.M. D2240-68

DIN 53 479

A.S.T.M. D412-68

A.S.T.M. D412-68

DIN 53 515

A.S.T.M. D412-68

DIN 53 512

DIN 52 612

DIN 53 482

DIN 53 841

A.S.T.M. D1-044-73

DIN 53 516

at 50 °C

at 20 °C

theoretically

stripped Isocyanate

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

MetaLine® Elastomeric coatings

Title 21 - Food and drugs
Chapter I - Food and drug administration (FDA)
Department of health and human services
Subchapter B - Food for human consumption (continued)

Issue:

- 1.) Use of „**MetaLine 580/590/598** and **MetaLine 760/785/795**“ coatings in direct contact with foodstuffs and **pharmaceutical** parts.
- 2.) Use of „**MetaLine 592**“ coating to comply for the use under the FFDCa and all applicable food additive regulations as a repeated food contact surface and for potable (drinking) water applications.

Specifications:

- 1.) Code of Federal Regulations **(FDA) 177.1680 (title 21)** - Polyurethane resins derived from a reaction of HMDI (Methylene di-(cyclohexylisocyanate) and polytetramethylene ether glycol or Polyurethane resins derived from TDI (Toluene Diisocyanate) and polytetramethylene ether glycol.
- 2.) Code of Federal Regulations **(FDA) 21 CFR Sec. 175.300, Table 2 Part E** - Polyurethane resin category CAS 373833-28-1 derived from a reaction of MDI (Diphenylmethane-diisocyanate) with 1,4-butanediol and polytetramethylene ether glycol.

Results:

- 1.) „**MetaLine 580/590/598** and **MetaLine 760/785/795**“ meet (FDA) 177.1680 (title 21) and can be used in contact with bulk quantities of dry food containing no free fat or oil on the surface resp. corresponding parts used for pharmaceutical purposes.
- 2.) „**MetaLine 592**“ meets (FDA) 21 CFR Sec. 175.300, Table 2 Part E and can be used for:
 - I. Nonacid (pH above 5.0), aqueous products
 - II. Acidic (pH 5.0 or below), aqueous products
 - III. Aqueous, acid or nonacid products containing free oil or fat
 - IV. Dairy products and modifications
 - V. Low moisture fats and oils
 - VI. Beverages (containing alcohol and non-alcoholic)
 - VII. Bakery products

Validity:

All product manipulations must be accordingly to the application procedure issued by the manufacturer.

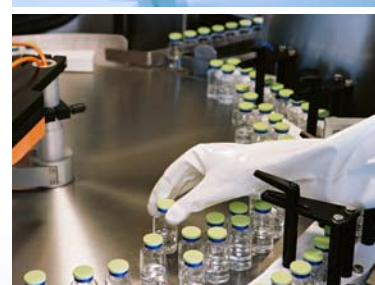
Date:

April 2011

On behalf:

We hereby confirm that the products mentioned above meet the FDA requirements and can be used safely for the intended contact service.

Dipl.-Ing. Thomas Schramm



MetaLine® Series 700

■ Target Industries

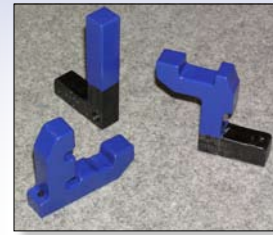
- Automation technology
- Minerals / Gravel / Sand
- Mining
- Pulp & Paper / Wood
- Petrochemical
- Rocks / Earth separation
- Power plant technology
- Food / Beverages
- Concrete / Asphalt processing
- Chemical industries
- Marine / Off-shore
- Municipal authorities
- Heating & Ventilation
- Pharmaceuticals
- Paper manufacturing
- Recycling technology
- Plastics processing
- Welding / Electrical engineering
- Glass / Crystal processing
- Alternative energy production
- Bulk handling
- Fertilizers / Animal food
- Ceramic industries
- Surface coating technologies
- Hydro engineering
- Occupational protection
- Automotive
- Packaging technology
- Aviation industries
- Textile machinery manufacturing

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

01. Clamping and gripping tools

- Multijaw grippers
- Hold-down / clamping tools
- Clamping pliers
- Clamping pads / stops
- Load hooks
- Girders
- Steady rests
- Fork lift attachment grippers (e.g. for paper rolls)

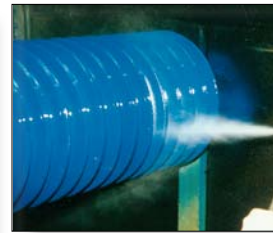
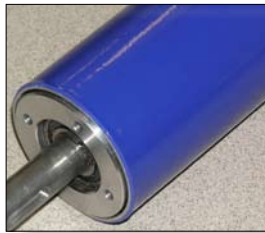


- Schunk Greiftechnik
- Stabilus

References

02. Rolls / Rollers

- Vacuum rollers (paper technology)
- Textile rollers (drivers / rerouting)
- Cable drums
- Transport rollers (steel industry)
- Textile beams
- Pulleys
- Friction wheels
- Pellet rolls
- Drive rollers (single parts according to FDA)

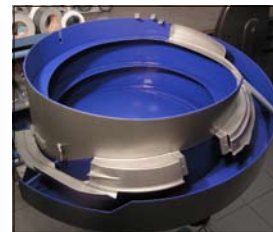


- Kalker-Gruppe
- Voith Paper

References

03. Automation equipment

- Feeder bowls
- Linear Feeders
- Inclined conveyors
- Centrifuges
- Belt-driven hoppers
- End pulley conveyors (plexiglass drums)
- Elevator buckets
- Belt-driven containers
- Infeed disks

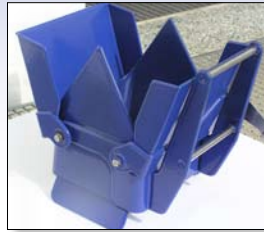


- Sortimat
- Rhein-Nadel-Automation

References

04. Weighing technology

- Head scales (breakage protection for food)
- Scale plates (sound deadening)
- Scale pans



- Mettler Toledo
- Ishida

References



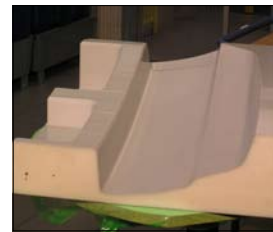
05. Tool carriers / Dies

- Assembly supports
- Tool bins
- Shipping pallets
- Wire baskets
- Mounts / magazines
- Ultra-Sonic welding frames
- Sockets / prisms
- Cleaning baskets (scratch and mark protection)



- TRW Fahrwerkstechnik
- Rolex

References



06. Specialty tools

- Tool handles (damage protection)
- Hood / trunk lid arrester
- Handles (Haptic properties)
- Sockets / tool extensions
- Gauges
- Magazines / magazine carts (scratch protection)



- Daimler
- BMW

References



Application examples

GB

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. Metaline is a registered trademark of our company. Copyright by Metaline Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

07. Orthopedic / Sports equipment

- Orthopedic pillows (seal)
- Sports prostheses (protection from injuries)
- Wheelchair drive rings
- Shoulder pads (sports rifles)
- Watersports equipment
- Film requisites / masks



- Recaro
- Anschütz

References



08. Occupational safety / Hygiene

- Skid-proof step facing
- Injury protection on parking brakes
- Linings in food transport vehicles
- Control levers (for thermal isolation)
- Loading surface linings
- Transport safety belts
- Machine foots



- Stuttgart Airport
- Faurecia

References



09. Electrical insulation

- Large welding electrodes
- Sensors
- Current collectors
- Control tools
- Fittings
- Submersible motors
- Cathodes (partial isolation)



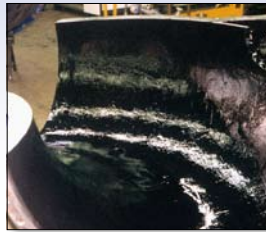
- GF Welding Technology
- Gerling

References



10. Fertilizer / Animal food

- Chutes
- Silos
- Dosing devices
- Centrifugal pelletizers
- Granulizer
- Seeding machines



- KWS Saattechnik
- Saturn Petfood

References



11. Food / Beverages

- Protection against breakage of „Frozen Food“
- Flour mills
- Bottle grippers (tulip sleeves)
- Rerouting stations



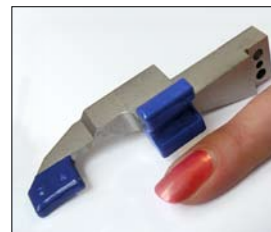
- Kraft Foods
- Wrigley

References



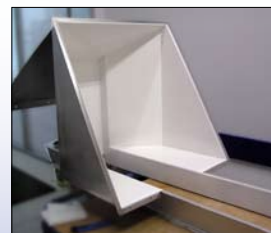
12. Medical technology

- Dosing devices
- Packaging machines
- Sampling apparatus (removing tools)
- Feeding trays
- Shipping containers (prevention of black discoloration)



- Astra Zeneca
- Boehringer

References



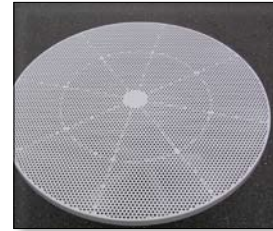
13. Shot blasting technology

- Shot blasting booths (dry/wet/medical)
- Blasting baskets
- Cyclones / blasting abrasive recirculation
- Turntables
- Blasting templates
- Component mounts



- Clemco
- Goldmann

References



14. Cyclones / Separators

- Chip vacuum systems
- Centrifuges
- Decanter housings
- Hydrocyclones
- Turbo separators



- Federal Mogul
- INA

References



15. Screw conveyors

- Free-running conveyors (pressureless)
- Foundry sand recycling
- Elevators
- Pipe-Feeders
- Snail dosimeters



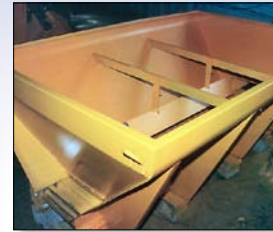
- Kartoffelstärkefabrik Lüchow
- Noll Aufbereitungstechnik

References



16. Municipal technology

- Scraper blades of snow removal vehicles
- Salt dumping containers (winter service)
- Storage tanks of vacuuming machines
- Agitators in treatment plants
- Sand trap pumps
- Bulkheads



- LUX International
- Invent Umwelttechnik

References

17. Construction machinery

- Concrete mixing truck (chutes and hopper)
- Dump truck (anti-adhesion coatings)
- Concrete pumps
- Dredging equipment
- Off-Road tires (OTR-repairs)
- Rubber chains (repairs)



- Liebherr
- Equigoma

References

18. Concrete constructions

- Receiver tank
- Secondary containment structures
- Cisterns
- Chute floors
- Terrariums



- ICMD
- S.T.R.S.

References

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

19. Flanges / Seals

- Pipe flanges / connections
- Sealing surfaces
- Couplings
- Compensators



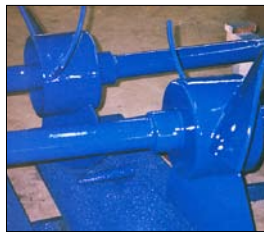
- Munk + Schmitz
- ICR

References



20. Ceramics / Tile manufacturing

- Mixer linings
- Mold coatings (anti-adhesion)
- Transport pans
- Palettising equipment



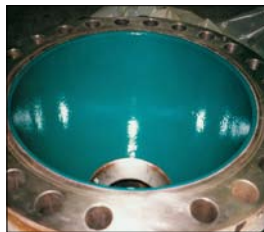
- Eternit
- Alcalagres

References



21. Glass / recycling / paper

- Glass transporting channels
- Guide mechanisms
- Vibrating tables



- Osram
- Swarovsky

References



Application examples

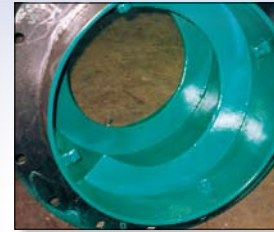
GB

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

22. Conveyor belts

- Rubber belts
- Chain links (increase in static friction)
- Coating of splicing devices
- Elevator (buckets)
- Stamping bands (increased cutting resistance)



- Shaw-Almex
- Minet

References



23. Bulk material systems

- Telescope pipe packages
- Filling equipment
- Slurry channels
- Heliconveyor
- Chutes / pouring containers
- Pebble mills (mineral technology)



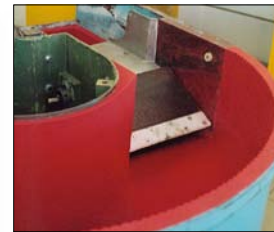
- IFE Austria
- Merz Aufbereitungstechnik

References



24. Polishing systems

- Repairs (without removing the used liner)
- Discharge panels and screens
- Polishing machinery for flatware
- Wet and dry grinding processes
- Scouring drums
- Deburring equipment
- Centrifuge baskets



- Vibra-Tech
- Aluminium Rheinfelden

References

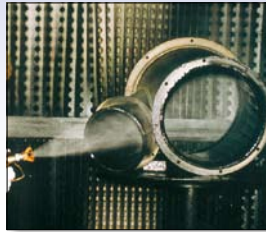


Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

25. Pipes / Conveyor systems

- Pipe bends
- Piping (anti-adhesion)
- Tips
- Y-pieces / branches
- Dampers
- Sluice gates
- Pressure pipes



- Stora Enso Papertec
- Kimberly-Clark

References



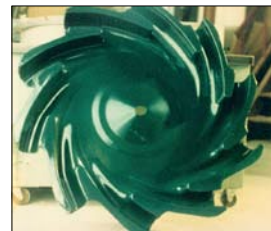
26. Fans / Blowers

- Fan blades / housings
- Chip vacuuming systems or blowers
- Pneumatic conveyor systems
- Chip blowers
- Propellers / impellers / rotors



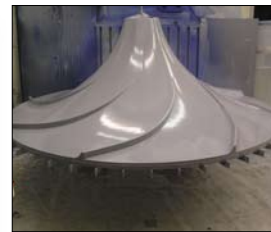
- Rockwool
- Blizzard

References



27. Agitators / Mixers

- Blade mixer
- Precipitator
- Circulating equipment
- Kneading inserts
- Screw mixer



- Invent
- KSB

References



Application examples

GB

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. Metaline is a registered trademark of our company. Copyright by Metaline Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

28. Pump wheels

- Open wheels
- Closed wheels
- Single / multiple blade wheels
- Worm gear
- Propellers



- KSB
- Avebe

References



29. Pump casing

- Centrifugal pump casings
- Submersible pumps
- Rubber inlays (Warman type)
- Solids handling pumps
- Rotary valves
- Seawater pumps
- Diffusors



- KSB
- Ritz-Pumpen

References



30. Power Generation

- Francis wheels
- Kaplan wheels
- Guide vanes / equipment
- Nozzle covers
- Water brakes
- Flow rectifiers
- Armatures
- Flue gas desulphurization (FGD)



- TIWAG
- EDF

References



Application examples

GB

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. Metaline is a registered trademark of our company. Copyright by Metaline Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

31. Containers

- Boxes (Type Schäfer)
- IBC containers
- Compost containers
- Shipping trays



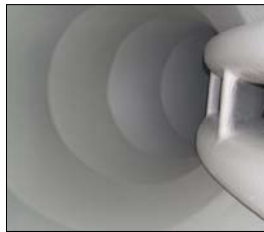
- Richard Bergner
- Noll Aufbereitungstechnik

References



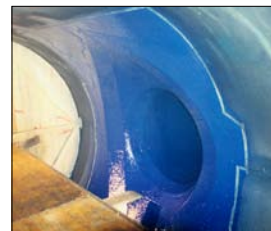
32. Hydraulic engineering

- Buoys / fenders
- Sheet piling
- Bulkheads
- Lock gates
- Swimming pipes
- Floodgates
- Floating equipment



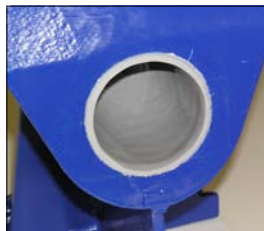
- ENBW
- Wasser- + Schiffsamt Stgt

References



33. Offshore

- Saltwater evaporators
- Jet vanes / Kort nozzles
- Floats
- Alumina hulls
- Anchor lockers
- Hatchways (water proofing)
- Shackles



- Deutsche Binnenwert
- Hoovercraft

References



34. Molds / Troughs

- Shipping troughs (cleaning reduction)
- Gutters / buckets
- Concrete molds (release oil reduction)



- Holcim
- Readymix

References



35. Vibrating chutes

- Pipe conveyors
- Trays
- Vibrating tables
- Linear guideways



- Aviteq
- Kellogg's

References



36. Tanks / Silos

- Floors / impact surfaces
- Inlet funnels (FDA)
- Silos
- Weld joint seals
- Synthetic tank materials (water proofing)
- Groundings (sealing)



- Rhodia Chemicals
- Solvay

References



Application examples

GB

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetaLine is a registered Trademark of our company. Copyright by MetaLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

37. Treatment facilities

- Flotation cells (flotation equipment)
- Slurry pumps
- Pipelines / pipe bends
- Screen frames
- Thickeners
- Corrugated bellows



- Mines d'Alsac
- Door-Oliver Eimco

References



38. Screens

- Screen coatings (non-metallic-character)
- Screens / screening decks
- Mill housing (mineral processing)
- Hoppers
- Vibrating screens
- Curved screening frames



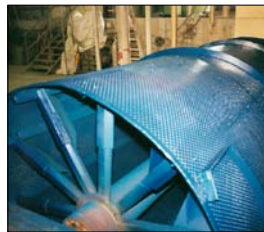
- Jöst
- Metso Minerals

References



39. Screens / filters

- Screening frames
- Screening drums
- Washing equipment (food)
- Centrifugal drums (galvanic)
- Perforated metal constructions
- Coalescer-filters



- Avebe
- Kirkwood

References



40. Vehicles / Trucks

- Vans (Transporters)
- Pick-Up-Trucks
- Street sweepers
- Dumpers
- Municipal vehicles
- Cattle trucks
- Airfield supplying vehicles



- Tass Fahrzeug-Ausstattungen
- Bucher-Schering

References

41. Functional seats

- Funfair riding equipment
- Play / leisure installations
- Seats on heavy duty working machinery
- Municipal furnishings
- Design studies on foam materials

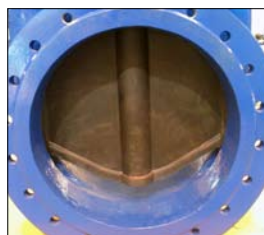


- Komatsu
- Wiener Praterverband

References

42. Water purification

- (Highpressure)-ball valves
- Waste-water treatment facilities
- Sludge pumps
- Immersion pumps
- Archimedian drawworks



- Edur Pumpen
- Magwehn Valves

References

Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. MetalLine is a registered trademark of our company. Copyright by MetalLine Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de

43. Caloric power plants

- Separators
- Coal dispensing valves
- Slag dewatering units
- Vacuum filters
- Coal conditioning systems
- Coolant installations
- Condensate collectors



- Deutsche Babcock
- Siemens

References



44. Nuclear power plants

- Candu VI Heavy-Water-Reactors
- Secondary containment coatings
- Cooling water pipes



- AEC
- EDF

References



45. Alternative energy

- Biomass feeders / pumps
- Tides turbines



- First Solar
- S.E.O.

References



Subject to technical modifications! Information and application examples in this overview are provided to the best of our knowledge. However, they also apply without guarantee in reference to the exclusive rights of third parties and do not release the user to check the products and processes for their suitability and material tolerance regarding their intended use. We do not assume liability for the application results. Metaline is a registered trademark of our company. Copyright by Metaline Surface Protection GmbH, DE-71157 Hildrizhausen (2004).

DE-71157 Hildrizhausen (Germany) | Phone +49 (0) 7034 3100-0 | info@metaline.de