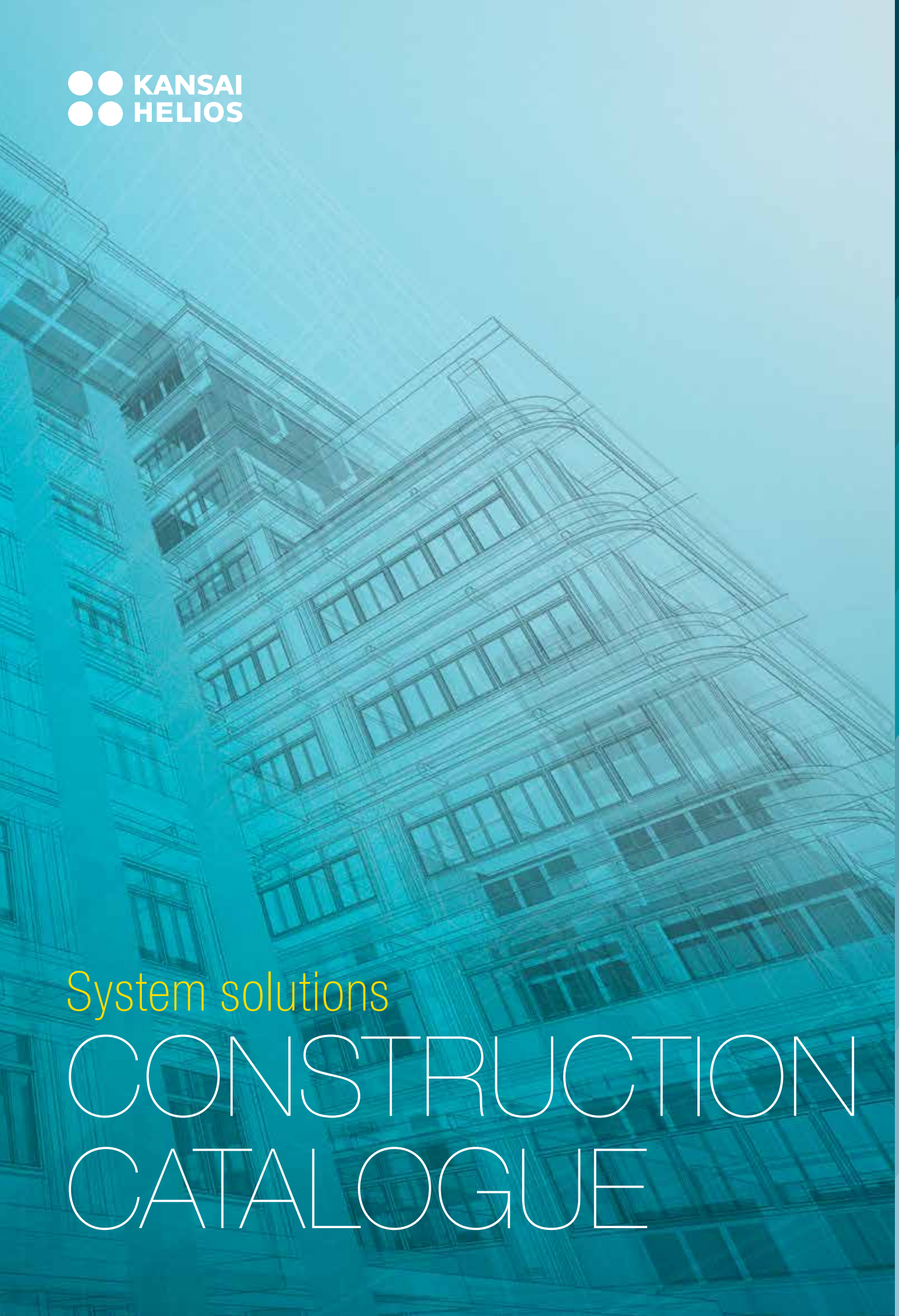
KANSAI HELIOS



System solutions

CONSTRUCTION CATALOGUE

GROUP KANSAI HELIOS IN NUMBERS

560 mio €
in sales

145.000 m²
production areas

2.320
employees

200 +
employees in R&D

Delivering to more than
50.000
customers in more than
89 countires worldwide

24
companies in 16
European countries

100 years
of tradition

DEAR USERS,

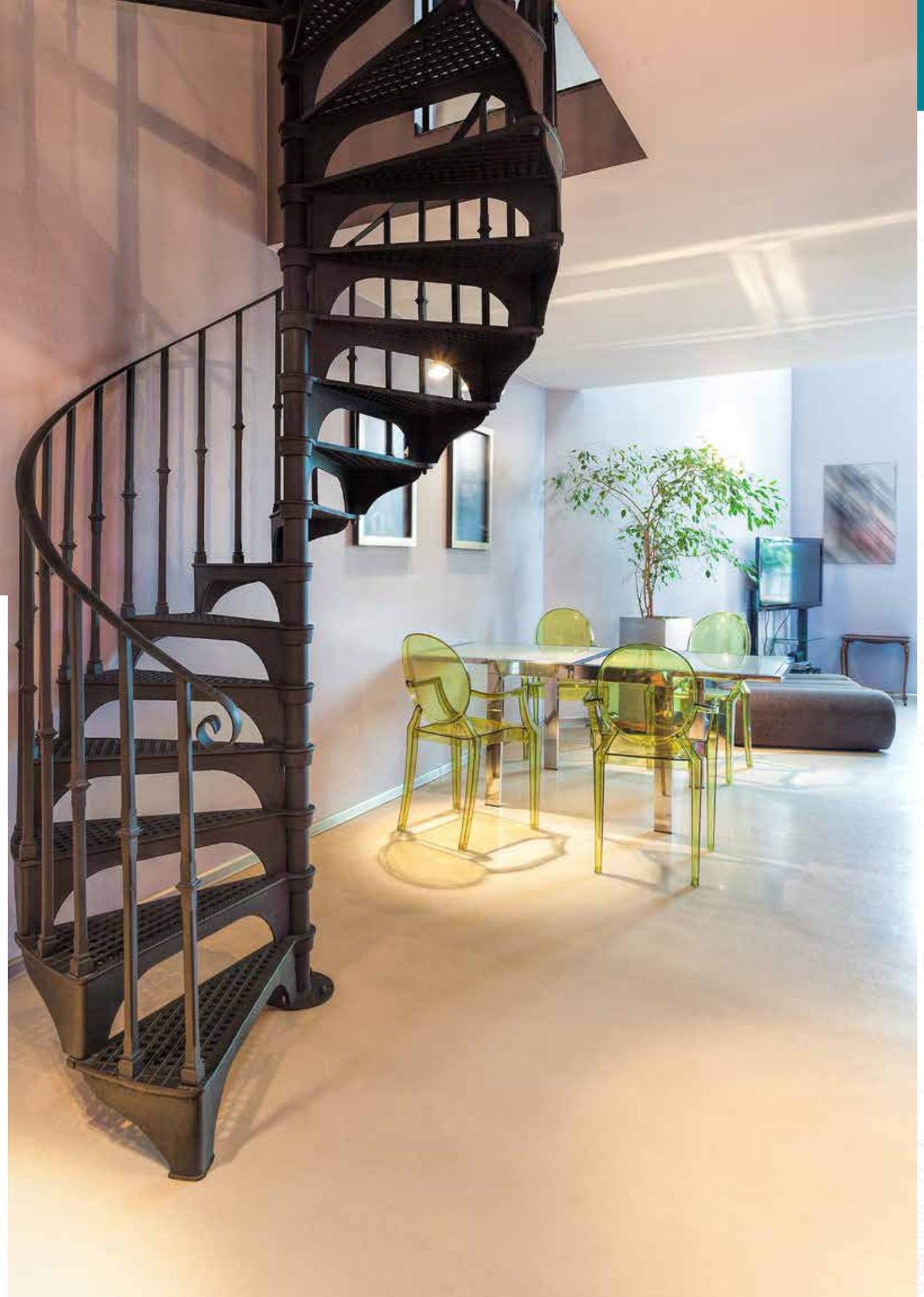
we are pleased to present a new catalogue, which was carefully prepared and adapted to cover areas of project work and construction industry. The catalog contains a selection of frequent system solutions that we have designed from a wide range of KANSAI HELIOS Group products. You can find products that are result of knowledge in the coating industry, which has been developed in KANSAI HELIOS Group for more than 100 years. Today in Helios, more than 2.320 people make sure that you, our customers around the world, are satisfied with both the products and our solutions and support.

KANSAI HELIOS is one of the largest coating groups in the European market, so we can offer our customers numerous customized products and solutions. The complete offer includes segments of decorative, wood, metal, car refinishing and road coatings, as well as products for the chemical industry and synthetic resins. In 2017 HELIOS Group became a member of the global coatings group Kansai Paint. As part of one of the world's leading paint and coating manufacturers, KANSAI HELIOS is becoming a European center for innovation, research and development, production and distribution. In addition to this, we are introducing principles of sustainable development and care for the environment in all areas of our development and operation. This means that we are also developing new products and solutions in order to reduce our consumption of resources and carbon footprint. All companies in KANSAI HELIOS Group operate in accordance with the highest environmental, industrial and safety standards.

Dear users, we invite you to look through our catalogue and contact our experts, who will offer you the most appropriate solutions for your project with their useful advice and experience. Our successful cooperation and your ultimate satisfaction is what we all strive for in Helios and what will make us truly proud.

Sincerely,
KANSAI HELIOS Team

METAL PROTECTION



4.1.1 METAL PROTECTION (IRON, STEEL)

QUALITY LEVEL		SURFACE PREPARATION	PRIMER	TOP COAT
PREMIUM	solvent	 • **TESSAROL NITRO THINNER** • TESSAROL THINNER	 • **TESSAROL UNIVERSAL PRIMER UNII** • TESSAROL PRIMER FOR IRON • TESSAROL EGALIN QUICK-DRYING PRIMER FOR METAL	 • **TESSAROL PRO PROTECT** • TESSAROL METAL EXPRESS • TESSAROL ENAMEL • TESSAROL EGALIN QUICK-DRYING ENAMEL
	water	 • **TESSAROL NITRO THINNER** • TESSAROL THINNER	 • **TESSAROL ACRYLIC PRIMER UNI**	 • **TESSAROL ACRYLIC ENAMEL**
ECONOMICAL	solvent	 • **COLOR NITRO THINNER** • COLOR ENAMEL THINNER	 • **COLOR PRIMER FOR METAL**	 • **COLOR ENAMEL**
	water		 • **COLOR ACRYLIC PRIMER FOR METAL**	 • **COLOR ACRYLIC ENAMEL**
AUXILIARY PRODUCTS		 • **COLOR COATING REMOVER**	 • **COLOR AVTOCOL PUTTY SOFT**	

Substrate preparation

TESSAROL NITRO THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL Egalin quick-drying primers for metal, TESSAROL Egalin quick-drying topcoats, TESSAROL metal Express and TESSAROL enamel for galvanized sheet metal, for cleaning surfaces you intend to paint or varnish, for cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	1 l / 5 l / 10 l

TESSAROL THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL solvent paints, cleaning surfaces before painting, cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	0.5 l / 1l / 5 l

COLOR NITRO THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	allows the thinning of Egalin quick-drying paints and nitro-based paints and lacquers, and also helps clean the surfaces you want to protect. Removes grease from metal surfaces, and wax and resin from wood surfaces.
PACKAGING UNITS:	1 l

COLOR ENAMEL THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	enables the thinning of solvent-based COLOR paints and the cleaning of tools after use.
PACKAGING UNITS:	1 l

Primer

TESSAROL UNIVERSAL PRIMER UNI

Excellent adhesion and basic protection of various substrates

- excellent adhesion to various surfaces
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick drying - application of TESSAROL enamel is possible after 3 hours

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	different metal surfaces: iron and steel surfaces, galvanized sheet metal, copper, aluminum, hard PVC and wood.
CONSUMPTION:	1l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.75 l
COLOUR SHADES:	white

TESSAROL PRIMER FOR IRON

Protection from rusting thanks to anti-corrosive pigments

- good adhesion
- good coverage
- easy to work with

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for different iron and steel surfaces in interior rooms and outdoors.
CONSUMPTION:	1l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.2 l / 0.75 l / 2.5 l; white: 0.75 l
COLOUR SHADES:	white, oxide red, grey

TESSAROL EGALIN QUICK-DRYING PRIMER FOR METAL

It contains anti-corrosion pigments that protect the metal from rusting

- it improves adhesion between the surface and the top coat
- quick drying: 1 – 3 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	different iron and steel objects in interior rooms and outdoors.
CONSUMPTION:	1 l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL NITRO thinner up to 10 %
PACKAGING UNITS:	0.20 l / 0.75 l / 2.5 l
COLOUR SHADES:	grey, red

TESSAROL ACRYLIC PRIMER UNI

Priming protection for different surfaces

- water-based
- excellent adhesion to iron and steel surfaces, galvanized sheet metal, copper, aluminum and hard PVC
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick-drying

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for iron and steel surfaces, galvanized sheet metal, copper, aluminum, and hard PVC.
CONSUMPTION:	1l covers 8 – 10 m² of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	0.65 l
COLOUR SHADES:	white

COLOR PRIMER FOR METAL

Primer for the protection of iron and steel surfaces

- protection against weather influences
- ensures smoothness of metal surfaces

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	metal surfaces become as smooth as possible and therefore protected against corrosion.
CONSUMPTION:	0.65 l / 4 – 6 m² 3.5 l / 22 – 32 m²
THINNING:	with COLOR ENAMEL THINNER to a maximum of 10%
PACKAGING UNITS:	0.65 l / 3.5 l

COLOR ACRYLIC PRIMER FOR METAL

Water-based anti-corrosion primer

- for the protection of iron and steel surfaces
- improves adhesion and coverage of the next coat
- contains anti-corrosion pigments
- quick-drying protection against weather influences
- ensures smoothness of metal surfaces

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	water-based anti-corrosion primer for the protection of iron and steel surfaces indoors and outdoors.
CONSUMPTION:	z 1l pri 1×-nem nanosu premažete 8 – 10 m²
THINNING:	with water, if required
PACKAGING UNITS:	0.65 l

Top coat

TESSAROL PRO PROTECT

Quick-drying top coat for the protection of metals, wood and elements from artificial materials, both indoors and outdoors

HGMIX

- up to 10 years of uv persistence
- stable gloss and stable colour shade (white and light shades practically do not become yellowish)
- excellent hiding power
- quick drying – 6 hours
- easy to apply, easy to work with, good levelling
- good elasticity and hardness
- great weather resistance
- resistance to household cleaning agents

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	windows, doors, fittings, wood claddings, fences, constructions, simple furniture in indoor surfaces and outdoor areas.
CONSUMPTION:	1 l covers 14 – 16 m² of surface in 1 coat
THINNING:	with TESSAROL thinner if necessary
PACKAGING UNITS:	standard colour shades: 0.75 l HGMIX: 0.75 l
COLOUR SHADES:	satin: white gloss: white

WHITE WHITE SATIN

TESSAROL METAL EXPRESS

Special fast drying coating for protection of indoor and outdoor metal surfaces

HGMIX

- excellent resistance to weathering
- quick drying: 2 hours
- high, stable gloss and hardness of the coating film
- good mechanical resistance

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	metal surfaces indoors and outdoors, also suitable for hot radiator pipes and radiators.
CONSUMPTION:	1 l covers 8 – 10 m² of surface in 1 coat
THINNING:	TESSAROL NITRO thinner up to 5 %
PACKAGING UNITS:	standard colour shades: 0.75 l HGMIX: 0.75 l
COLOUR SHADES:	matt: black and dark gray gloss: white and 9 standard colour shades

WHITE RAL 1018 RAL 3020 RAL 5017 RAL 6001 RAL 8016 RAL 9006 RAL 7042 RAL 7016 RAL 7016 M RAL 9005 RAL 9005 M

TESSAROL EGALIN QUICK-DRYING ENAMEL

Wood and metal protection coating

- it dries fast, so the surface can be coated multiple times in one day
- white and light shades do not become yellowish
- easy to use

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	windows, doors, fittings, wood claddings, fences, constructions, furniture and other metal and wood indoor surfaces and outdoor areas.
CONSUMPTION:	1 l covers 8 – 10 m² of surface in 1 coat
THINNING:	TESSAROL NITRO thinner
PACKAGING UNITS:	0.20 l / 0.75 l
COLOUR SHADES:	matt: white, black, dark gray gloss: white and 11 standard colour shades

WHITE WHITE MATT RAL 1005 RAL 1021 RAL 2011 RAL 3020 RAL 5003 RAL 6002 RAL 8011 RAL 9006 RAL 7046 RAL 7016 RAL 7016M RAL 9005 RAL 9005M

TESSAROL ENAMEL (GLOSS/SATIN)

Long-term colour protection of different surfaces

- excellent hiding power and levelling
- good elasticity and hardness
- stable gloss and colour shade
- finishing gloss or semi-gloss coat
- good weather- and light resistance

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for windows, doors, fittings, wood claddings, fences, structures, simple furniture indoors and outdoors.
CONSUMPTION:	1l covers 14 – 16 m^2 of surface in 1 coat
THINNING:	ready for use
PACKAGING UNITS:	standard shades: 0.2 l / 0.75 l / 2.5 l / 10 l (silver) HGMIX: 1l / 3 l / 10 l
COLOUR SHADES:	gloss: white and 15 standard colour shades satin: white (1S) and black (2S)

WHITE · WHITE SATIN · RAL 9005 · RAL 9005 S · RAL 8017 · RAL 6005 · RAL 3000 · RAL 1021 · RAL 5015 · RAL 3004 · RAL 5001 · RAL 8001 · RAL 2010 · RAL 7016 · RAL 7046 · RAL 9006 · RAL 8029 · RAL 1036 · RAL 6037

TESSAROL ACRYLIC ENAMEL (GLOSS/SATIN)

Quick-drying without an unpleasant smell

HGMIX

- eco-friendly
- thinning with water
- stable gloss and colour shades (white and light colours shades do not become yellow)
- good elasticity
- resistant to household cleaning agents

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for windows, doors, fittings, wood claddings, fences, structures, simple furniture indoors and outdoors.
CONSUMPTION:	1l covers 10 – 12 m^2 of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	standard colour shades: 0.2 l / 0.65 l / 2.6 l; HGMIX: 0.65 l / 2.6 l
COLOUR SHADES:	satin: white and 10 standard colour shades gloss: white and black

WHITE SATIN · WHITE · RAL 9005 S · RAL 9005 · RAL 8003 · RAL 6002 · RAL 3001 · RAL 1018 · RAL 5005 · RAL 7016 · RAL 8017

COLOR ENAMEL

Comprehensive protection and decoration of wooden and metal surfaces

- protection against weather influences
- high level of hiding power
- easy to use

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for combining comprehensive protection and decoration, as it is intended for both wood and metal surfaces. For painting wood and metal surfaces with COLOR ENAMEL to protect from weather effects, such as water and UV rays.
CONSUMPTION:	0.65 l / 7 – 9 m^2 3.5 l / 42 – 49 m^2
THINNING:	ready for use
PACKAGING UNITS:	0.65 l / 3.5 l

RAL 9010 · RAL 1015 · RAL 5010 · RAL 8011 · RAL 9005 · RAL 1003 · RAL 3000 · RAL 6001 · RAL 7037

COLOR ACRYLIC ENAMEL

Comprehensive protection and decoration of wooden and metal surfaces

- protects against all weather influences
- quick-drying
- no unpleasant odours
- does not yellow
- water-based

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for combining comprehensive protection and decoration, as it is intended for both wood and metal surfaces. For painting wood and metal surfaces with COLOR ENAMEL to protect from weather effects, such as water and UV rays.
CONSUMPTION:	1 l covers 9 – 11 m^2 of surface in 1 coat
PACKAGING UNITS:	ready for use
PACKAGING UNITS:	0.65 l

RAL 9010 · RAL 1015 · RAL 5010 · RAL 8011 · RAL 9005 · RAL 1003 · RAL 3000 · RAL 6001 · RAL 7016S · RAL 7037

Auxiliary products

COLOR COATING REMOVER

Agent used to chemically remove old coatings from wood and metal surfaces

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	helps to remove traces of time from metal and wood, and then to protect them again with decorative and protective coatings.
CONSUMPTION:	0.75 l / 1.5 – 2 m^2 1l / 2 – 3 m^2
PACKAGING UNITS:	0.75 l

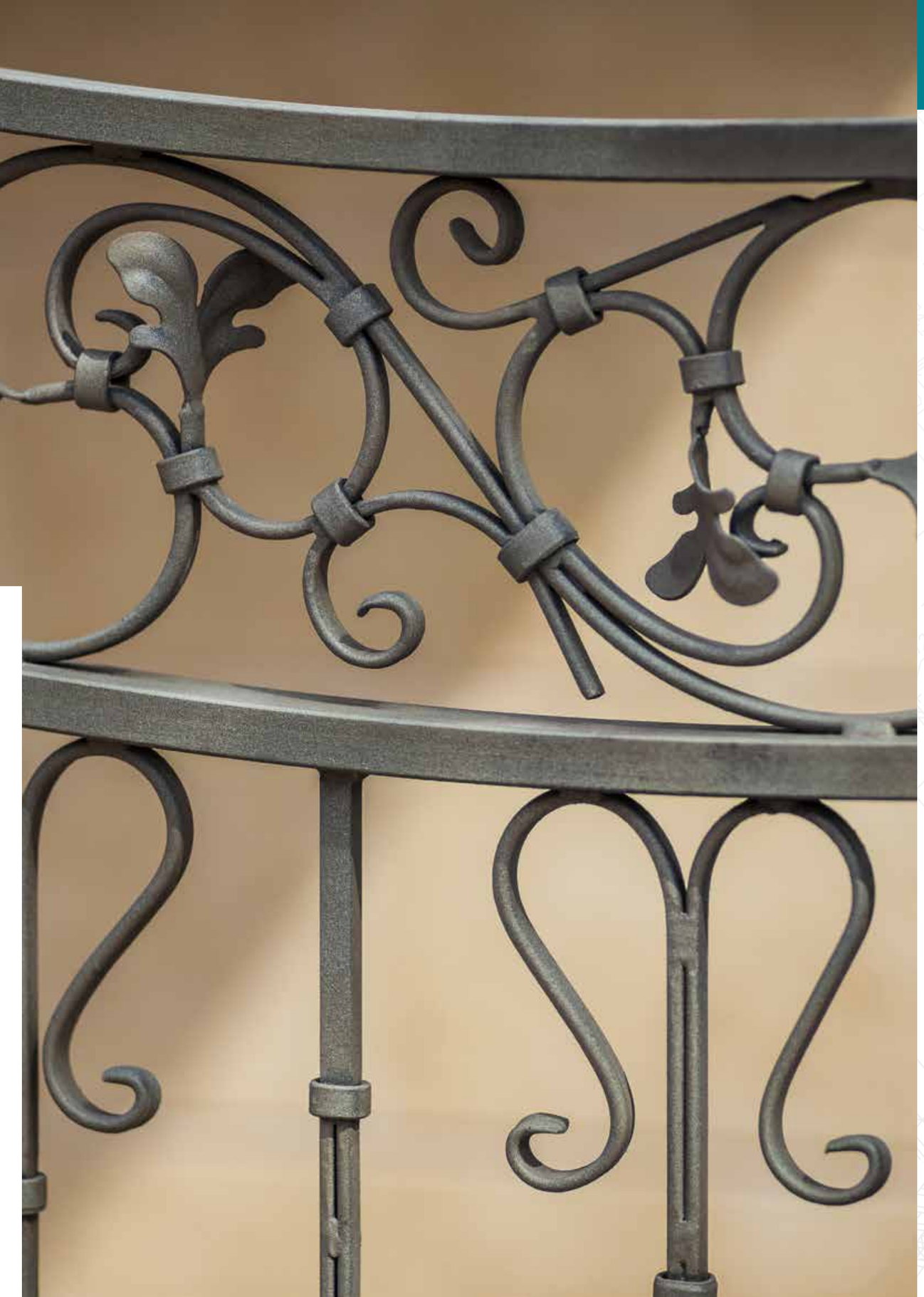
COLOR AVTOCOL PUTTY SOFT

Two-component polyester putty

- excellent spreading properties
- quick drying
- easy sanding

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for filling and repairing larger and smaller uneven metal, wood and plastic surfaces. For interier and exterier.
CONSUMPTION:	0.5 kg / 1 kg
MIXING RATIO:	100 parts by weight of putty: 2 parts by weight of organic peroxide. At lower temperatures (15 – 20 °C) add 3% organic peroxide to achieve the same drying time.
PACKAGING UNITS:	0.65 l
COLOUR SHADES:	off-white



4.1.2 SPECIAL COATINGS

SURFACE		SURFACE PREPARATION	PRIMER	TOP COAT
IRON, STEEL		• TESSAROL NITRO THINNER • TESSAROL THINNER	• TESSAROL UNIVERSAL PRIMER UNI • TESSAROL PRIMER FOR IRON	• TESSAROL ANTIK 3in1
		• TESSAROL NITRO THINNER	• TESSAROL UNIVERSAL PRIMER UNI • TESSAROL PRIMER FOR IRON	• TESSAROL METAL EXPRESS
		• TESSAROL NITRO THINNER • TESSAROL THINNER		• TESSAROL DIRECT 3in1
		• TESSAROL NITRO THINNER		• TESSAROL PRO HEAT PROTECT
GALVANIZED SURFACE	solvents	ammonia water		• TESSAROL ENAMEL FOR GALVANIZED SHEET METAL
		ammonia water	• TESSAROL UNIVERSAL PRIMER UNI	• TESSAROL PRO PROTECT • TESSAROL METAL EXPRESS • TESSAROL ENAMEL • TESSAROL ANTIK 3in1
	water	ammonia water	• TESSAROL ACRYLIC PRIMER UNI	• TESSAROL ACRYLIC ENAMEL
COPPER, ALUMINIUM	solvents	• TESSAROL NITRO THINNER		• TESSAROL ENAMEL FOR GALVANIZED SHEET METAL
		• TESSAROL NITRO THINNER	• TESSAROL UNIVERSAL PRIMER UNI	• TESSAROL PRO PROTECT • TESSAROL METAL EXPRESS • TESSAROL ENAMEL
AUXILIARY PRODUCTS		• COLOR COATING REMOVER	• COLOR AVTOCOL PUTTY SOFT	

Substrate preparation

TESSAROL THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL solvent paints, cleaning surfaces before painting, cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	0.5 l / 1l / 5 l

TESSAROL NITRO THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL Egalin quick-drying primers for metal, TESSAROL Egalin quick-drying topcoats, TESSAROL metal Express and TESSAROL enamel for galvanized sheet metal, for cleaning surfaces you intend to paint or varnish, for cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	1l / 5 l / 10 l

Primer

TESSAROL UNIVERSAL PRIMER UNI

Excellent adhesion and basic protection of various substrates

- excellent adhesion to various solvent-based surfaces
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick drying - application of TESSAROL enamel is possible after 3 hours

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	different metal surfaces: iron and steel surfaces, galvanized sheet metal, copper, aluminum, hard PVC and wood.
CONSUMPTION:	1l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.75 l
COLOUR SHADES:	white

TESSAROL PRIMER FOR IRON

Protection from rusting thanks to anti-corrosive pigments

- good adhesion
- good coverage
- easy to work with

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for different iron and steel surfaces in interior rooms and outdoors.
CONSUMPTION:	1l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.2 l / 0.75 l / 2.5 l; white: 0.75 l
COLOUR SHADES:	white, oxide red, grey

TESSAROL ACRYLIC PRIMER UNI

Priming protection for different surfaces

- water-based
- excellent adhesion to iron and steel surfaces, galvanized sheet metal, copper, aluminum and hard PVC
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick-drying

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for iron and steel surfaces, galvanized sheet metal, copper, aluminum, and hard PVC.
CONSUMPTION:	1l covers 8 – 10 m^2 of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	0.65 l
COLOUR SHADES:	white

Top coat

TESSAROL ANTIK 3in1

Top coat with a metal gloss that gives an old wrought-iron appearance

- good anti-corrosion protection
- easy to work with
- good weather- and light resistance

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for products of forgery, weather-exposed iron surfaces, such as garden, balcony and staircase fences, garden and entrance gates, grids for windows.
CONSUMPTION:	1l covers 8 – 10 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 13%
PACKAGING UNITS:	anthracite 0.75 l / 2.5 l HGMIX (silver): 0.7 l
COLOUR SHADES:	anthracite, silver HGMIX

TESSAROL METAL EXPRESS

Special fast drying coating for protection of indoor and outdoor metal surfaces

- excellent resistance to weathering
- quick drying: 2 hours
- high, stable gloss and hardness of the coating film
- good mechanical resistance

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	suitable for metal surfaces indoors and outdoors, as well as for hot radiator pipes and radiators.
CONSUMPTION:	1 l covers 8 – 10 m^2 of surface in 1 coat
THINNING:	TESSAROL NITRO thinner up to 5%
PACKAGING UNITS:	standard colour shades: 0,75 l HGMIX: 0,75 l
COLOUR SHADES:	10 standard colour shades WHITE, RAL 1018, RAL 3020, RAL 5017, RAL 6001, RAL 8016, RAL 9006, RAL 7042, RAL 9005, RAL 9005 M

TESSAROL DIRECT 3in1

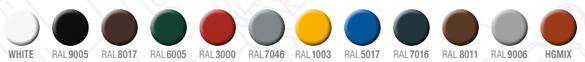
Direct application onto iron and steel surfaces, without using primers

- high level of film hardness
- easy to work with, easy to apply, good levelling
- good weather- and light resistance
- good coverage

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for quality decoration of metal, iron and steel surfaces, such as constructions, fences, windows, doors, fittings, simple furniture in internal spaces and outdoors. It can be used without a primer, and applied directly onto a dry and sanded surface, cleaned of rough rust particles.
CONSUMPTION:	1l covers 10 – 12 m^2 of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.2 l / 0.75 l / 2.5 l / 10 l HGMIX: 0.65 l / 2.25 l / 9 l
COLOUR SHADES:	white, 11 colour shades



TESSAROL PRO HEAT PROTECT

Resistance to high temperatures

- special metal-look top coat
- temperature- and weather-resistant top coat paint
- for the protection of metal object which are exposed to high temperatures
- durability of silver tint up to 400 °C and black tint up to 350 °C

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for metal surfaces, such as exhaust and flue pipes that are exposed to high temperatures.
CONSUMPTION:	1 l covers 10 – 12 m^2 of surface in 1 coat
THINNING:	not to be thinned
PACKAGING UNITS:	0.2 l / 0.75 l / 10 l
COLOUR SHADES:	silver, black

TESSAROL ENAMEL FOR GALVANIZED SHEET METAL

Good adhesion onto galvanized sheet metal and other coloured metal

- excellent hiding power
- quick-drying
- silky gloss
- good weather- and light resistance

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for roof sheet metal, grooves, fences, containers, door edges, central heating copper pipes.
CONSUMPTION:	1l covers 7 – 9 m^2 of surface in 1 coat
THINNING:	TESSAROL NITRO THINNER, up to 1%
PACKAGING UNITS:	0.75 l
COLOUR SHADES:	white, 7 colour shades

TESSAROL PRO PROTECT

Quick-drying top coat for the protection of metals, wood and elements from artificial materials, both indoors and outdoors

HGMIX

- up to 10 years of uv persistence
- stable gloss and stable colour shade (white and light shades practically do not become yellowish)
- excellent hiding power
- quick drying – 6 hours
- easy to apply, easy to work with, good levelling
- good elasticity and hardness
- great weather resistance
- resistance to household cleaning agents

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	windows, doors, fittings, wood claddings, fences, constructions, simple furniture in indoor surfaces and outdoor areas.
CONSUMPTION:	1 l covers 14 – 16 m^2 of surface in 1 coat
THINNING:	with TESSAROL thinner if necessary
PACKAGING UNITS:	standard colour shades: 0.75 l HGMIX: 0.75 l
COLOUR SHADES:	satin: white gloss: white

TESSAROL ENAMEL (GLOSS/SATIN)

Long-term colour protection of different surfaces

- excellent hiding power and levelling
- good elasticity and hardness
- stable gloss and colour shade
- finishing gloss or semi-gloss coat
- good weather- and light resistance

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for windows, doors, fittings, wood claddings, fences, structures, simple furniture indoors and outdoors.
CONSUMPTION:	1l covers 14 – 16 m² of surface in 1 coat
THINNING:	ready for use
PACKAGING UNITS:	standard shades: 0.2 l / 0.75 l / 2.5 l / 10 l (silver) HGMIX: 1l / 3 l / 10 l
COLOUR SHADES:	gloss: white and 15 standard colour shades satin: white (1S) and black (2S)

TESSAROL ACRYLIC ENAMEL (GLOSS/SATIN)

Quick-drying without an unpleasant smell

- eco-friendly
- thinning with water
- stable gloss and colour shades (white and light colours shades do not become yellow)
- good elasticity
- resistant to household cleaning agents

HGMIX

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for windows, doors, fittings, wood claddings, fences, structures, simple furniture indoors and outdoors.
CONSUMPTION:	1l covers 10 – 12 m² of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	standard colour shades: 0.2 l / 0.65 l / 2.6 l; HGMIX: 0.65 l / 2.6 l
COLOUR SHADES:	satin: white and 10 standard colour shades gloss: white and black

Auxiliary products

COLOR COATING REMOVER

Agent used to chemically remove old coatings from wood and metal surfaces

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	helps to remove traces of time from metal and wood, and then to protect them again with decorative and protective coatings.
CONSUMPTION:	0.75 l / 1.5 – 2.25 m² 1l / 2 – 3 m²
PACKAGING UNITS:	0.75 l

COLOR AVTOCOL PUTTY SOFT

Two-component polyester putty

- excellent spreading properties
- quick drying
- easy sanding

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for filling and repairing larger and smaller uneven metal, wood and plastic surfaces. For interier and exterier.
CONSUMPTION:	0.5 kg / 1 kg
MIXING RATIO:	100 parts by weight of putty: 2 parts by weight of organic peroxide. At lower temperatures (15 – 20 °C) add 3% organic peroxide to achieve the same drying time.
PACKAGING UNITS:	0.65 l
COLOUR SHADES:	off-white

4.1.3 PROTECTION FOR RADIATORS AND PIPES

QUALITY LEVEL		SURFACE PREPARATION	PRIMER	TOP COAT
STANDARD	water	 • TESSAROL NITRO THINNER • TESSAROL THINNER	 • TESSAROL ACRYLIC PRIMER UNI	 • TESSAROL ACRYLIC ENAMEL FOR RADIATORS
	solvent	 • TESSAROL NITRO THINNER • TESSAROL THINNER	 • TESSAROL UNIVERSAL PRIMER UNI • TESSAROL PRIMER FOR IRON	 • TESSAROL ENAMEL FOR RADIATORS

Substrate preparation

TESSAROL NITRO THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL Egalin quick-drying primers for metal, TESSAROL Egalin quick-drying topcoats, TESSAROL METAL EXPRESS and TESSAROL enamel for galvanized sheet metal, for cleaning surfaces you intend to paint or varnish, for cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	1 l / 5 l / 10 l

TESSAROL THINNER

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	thinning TESSAROL solvent paints, cleaning surfaces before painting, cleaning tools and removing not yet dried paint stains.
PACKAGING UNITS:	0.5 l / 1 l / 5 l

Primer

TESSAROL ACRYLIC PRIMER UNI

Priming protection for different surfaces

- water-based
- excellent adhesion to iron and steel surfaces, galvanized sheet metal, copper, aluminum and hard PVC
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick-drying

6-8 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for iron and steel surfaces, galvanized sheet metal, copper, aluminum, and hard PVC.
CONSUMPTION:	1 l covers 8 – 10 m² of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	0.65 l
COLOUR SHADES:	white

TESSAROL UNIVERSAL PRIMER UNI

Excellent adhesion and basic protection of various substrates

- excellent adhesion to various solvent-based surfaces
- protection of iron and steel surfaces from rusting by means of anti-corrosive pigments
- quick drying - application of TESSAROL enamel is possible after 3 hours

3-4 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	different metal surfaces: iron and steel surfaces, galvanized sheet metal, copper, aluminum, hard PVC and wood.
CONSUMPTION:	1 l covers 7 – 9 m² of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.75 l
COLOUR SHADES:	white

TESSAROL PRIMER FOR IRON

Protection from rusting thanks to anti-corrosive pigments

- good adhesion
- good coverage
- easy to work with

24 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for different iron and steel surfaces in interior rooms and outdoors.
CONSUMPTION:	1 l covers 7 – 9 m² of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.2 l / 0.75 l / 2.5 l; white: 0.75 l
COLOUR SHADES:	white, oxide red, grey

Top coat

TESSAROL ACRYLIC ENAMEL FOR RADIATORS

Does not yellow, quick-drying, without unpleasant odours

- resistant up to 120 °C
- glossy finishing coat
- eco-friendly
- thinning with water
- resistant to household cleaning agents

8-10 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for iron radiators, radiator and indoor hot water pipes.
CONSUMPTION:	1 l covers 10 – 12 m² of surface in 1 coat
THINNING:	water
PACKAGING UNITS:	0.75 l
COLOUR SHADES:	white

TESSAROL ENAMEL FOR RADIATORS

Glossy top coat, permanent in a temperature between 60 and 80 °C

- good levelling
- stable gloss
- easy to work with
- resistant to household cleaning agents

24 h

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	for iron radiators, radiator and indoor hot water pipes.
CONSUMPTION:	1 l covers 8 – 10 m² of surface in 1 coat
THINNING:	TESSAROL thinner, max. 15%
PACKAGING UNITS:	0.75 l / 2.5 l
COLOUR SHADES:	white

GENERAL INFORMATION ON METAL AND CORROSION

Metal materials, such as iron, zinc, aluminum, copper and brass are widely used for various constructions, construction elements and the production of useful goods. Unfortunately, they have a tendency to corrode. Corrosion causes a change in the composition of the metal and, consequently, its mechanical physical properties.

Corrosion is a process that happens in a thin film of moisture on the surface of metals. The moisture film can be so thin that it can be invisible to the naked eye. The corrosion rate increases with increasing relative air humidity, condensation of moisture on the surface and the increase in atmospheric pollution with materials that react with the metal surface. Corrosion is also affected by the location of the building, exposure to rain, sun, and air pollution. A roof decreases weather effects. Indoors, areas with strong corrosion loads appear due to poor airing, high air humidity or condensation.

CHOOSING THE SUITABLE PAINTS OR COATING SYSTEM

In the past, the most commonly used materials in construction were iron and wood. Traditional coatings based on long-chain alkyd binders were and still are used today to protect and renovate these surfaces. Due to the rapid deterioration of iron and wood due to environmental effects, the use of other materials more resistant to atmospheric influences has begun to increase. With the advent of materials such as a galvanized surfaces, copper, aluminum, and hard PVC, the weakness of traditional coatings has been shown, since these paints have poor adhesion to those surfaces (Image 1). Therefore, for long-lasting and high-quality protection, choosing the appropriate paint or coating system is very important. For the protection of new surfaces, choosing the coating system is easier because the surface's material is known (iron, wood, galvanized sheet metal, copper...). With renovations however, the coating that was applied previously is not usually known, so we recommend testing the adhesion of the new coating to the old surface.

Image 1: Example of adhesion: left - special paint for the protection of galvanized sheet metal, right - "classic" universal paint for the protection of iron and wood

ADHESION OF THE COATING TO THE SURFACE

How to determine if the coating has a good adhesion to the surface?

There are various methods to assess adhesion to the surface: with a knife, with self-adhesive tape, and with the pull-off test.

SURFACE PREPARATION

The lifespan of the coating strongly depends on a high-quality preparation of the surface. Regardless if high quality paint is used and the application is suitable, the coatings will not protect for as long as expected if the surface preparation is poor. The most common impurities on metal surfaces are: oils, greases and dirt, chlorides and other salts, corrosion products (e.g. rust), dross. Various methods are available for the preparation of metal surfaces: cleaning with various organic solvents, manual cleaning with brushes and scraping, machine cleaning, sandblasting with various abrasive bodies, high pressure water treatment. The surface preparation process must remove dirt, grease, corrosion products (Image 2), dross (Image 3) and possible loose coatings from the metal surface. The objective of all methods of surface preparation is a clean and sufficiently rough surface to allow good adhesion of the coatings.

Image 2: Formation of bubbles due to under-rusting

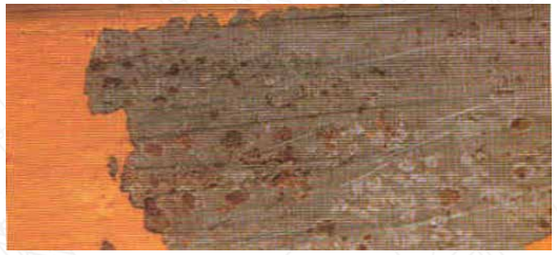


Image 3: Dotted under-rusting due to residual dross

Iron and steel surfaces
Remove oils, grease and other impurities with organic solvents. Remove corrosion products - rust, dross and old coatings - mechanically with manual or machine cleaning (cleaning with brushes, sanders, scrapers, sanding paper). Old coatings can also be removed with special coating removal agents.

Zinc, zinc coatings
Oils, grease, dirt, soluble zinc salts, zinc corrosion products (white rust), poorly joined parts of zinc coating, and also rust after long exposure to atmospheric effects, must be removed from the surface.

The surface should be cleaned with a mix of water (10 l), ammonium chloride (ammonia solution - 0.5 l) and detergent (one cap), and sanded with a sanding cloth made of synthetic fibers. Clean the sanding remains thoroughly with water and dry the surface. For hot galvanized surfaces, we recommend slight sanding, which creates a certain roughness of the surface and improves the adhesion of the coating.

Copper surface
Remove oils, grease and other impurities with the TESSAROL NITRO THINNER and sand with a sanding cloth made of synthetic fibres.

Aluminum surface
Remove oils, grease and other impurities with the TESSAROL NITRO THINNER and sand with a sanding cloth made of synthetic fibres. Before using the TESSAROL enamel for galvanized sheet metal, we recommend testing the coating's adhesion to the cleaned surface.

APPLICATION THICKNESS, NUMBER OF COATS

After choosing the appropriate paint or coating system and properly preparing the surface, the final thickness of the coating layers is also important for long-term protection. The lower and upper thickness limits of the coating film are both important.

If the final thickness of the coating or coating system is thinner than recommended by the manufacturer, the protection life span will be shorter than expected. The recommended thickness of the dry film in the foundation ensures adequate barrier properties (limits the passage of corrosion agents) and provides enough anticorrosion pigment to inhibit the corrosion process. With top coatings, the recommended thickness provides suitable barrier properties, weather resistance and at the same time provides the desired aesthetic appearance (a beautiful smooth surface).

If the final thickness of individual coatings is greater than recommended, there may be defects in the coating film. Traditional widely used paints are made on the basis of long-chain alkyd binders. The caking of long-chain alkyd binders takes place in two phases: first, the solvents evaporate, and then the chemical caking begins by binding airborne oxygen. If the thickness of the coating is greater than recommended, the surface paint will dry up while underneath it will remain soft, as oxygen cannot penetrate the dried surface. This results in poor mechanical properties of the coating, poor adhesion, and potential wrinkling when applying the second layer. Consequently, the coating does not offer long-lasting protection.

INDUSTRIAL METAL PROTECTION

Šport Ljubljana archive

Stožice Stadium, Ljubljana

4.2.1 LIQUID PROTECTIVE COATINGS

COATING SYSTEMS ACC. ISO 12944-5

LOW ALLOYED, UNALLOYED STEEL AND HOT-DIP GALVANIZED STEEL (HDG) ACCORDING ISO 1461

CORROSIVITY CATEGORY / DURABILITY	SURFACE	SURFACE PREPARATION[1]	PRIMER	INTERMEDIATE COAT	TOPCOAT	SYSTEM NDFT[2]
C5 VH	HDG	Sweep Blasting	• **REMOPLAST TL GLIMMER** 80 µm	• **REMOPLAST HS UVC NUS** 80 µm	• **REMOPLAST HS UVC NUS** 80 µm	240 µm
C5 VH	Steel	Sa 2 1/2 medium (G)	• **REMOPLAST EP ZINK** 60 µm	• **REMOPLAST MSR ULTRA IC** 160 µm	• **REMOPLAST UVC PL HS ES** [3] 100 µm	320 µm
C5 VH	Steel	Sa 2 1/2 medium (G)	• **REMOPLAST EP ZINK** 70 µm	• **REMOPLAST HS-TL GLIMMER NUS** 120 µm	• **REMOPLAST HS UVC NUS** 2× 80 µm	350 µm
C5 H	HDG	Sweep Blasting	• **REM 61 PRIMER** 80 µm		• **REMOPLAST UVC PL HS ES** [3] 120 µm	200 µm
C5 H	HDG	Sweep Blasting	• **REMOPLAST MSR ULTRAPRIMER** 120 µm		• **REMOPLAST UVC PL HS ES** [3] 80 µm	200 µm
C5 H	Steel	Sa 2 1/2	• **REMOPLAST MSR ULTRAPRIMER** 110 µm	• **REMOPLAST MSR ULTRA IC** 110 µm	• **REMOPLAST UVC PL HS ES** [3] 80 µm	300 µm
C5 H	Steel	Sa 2 1/2 medium (G)	• **REMOPLAST EP ZINK** 80 µm	• **REMOPLAST MSR ULTRA IC** 100 µm	• **REMOPLAST UVC PL HS ES** [3] 80 µm	260 µm
C4 H, C5 M	Steel	Sa 2 1/2	• **REM AQUAPOX S31** 80 µm	• **REM AQUAPOX S31** 80 µm	• **REMOPLAST AQUA UVC** 80 µm	240 µm
C4 H, C5 M	HDG	Sweep Blasting	• **REM 61 PRIMER** 80 µm		• **REMOPLAST UVC PL HS ES** [3] 80 µm	160 µm
C4 H, C5 M	HDG	Sweep Blasting	• **REMOPLAST MSR ULTRAPRIMER** 80 µm		• **REMOPLAST UVC PL HS ES** [3] 80 µm	160 µm
C4 H, C5 M	Steel	Sa 2 1/2	• **REMOPLAST SPEED DRY** 140 µm		• **REMOPLAST UVC PL HS ES** [3] 100 µm	240 µm
C4 H, C5 M	Steel	Sa 2 1/2	• **REMOPLAST MSR ULTRAPRIMER** 160 µm		• **REMOPLAST UVC PL HS ES** [3] 80 µm	240 µm
C3 H, C4 M, C5 L	Steel	Sa 2 1/2	• **REM AQUAPOX S31** 100 µm		• **REMOPLAST AQUA UVC** 80 µm	180 µm
C3 H, C4 M, C5 L	Steel	Sa 2 1/2	• **REMOPLAST PRIMER** 90 µm		• **REMOPLAST UVC PL HS ES** [3] 90 µm	180 µm
C3 H, C4 M, C5 L	Steel	Sa 2 1/2	• **REMOPLAST SPEED DRY** 100 µm		• **REMOPLAST UVC PL HS ES** [3] 80 µm	180 µm
C3 H, C4 M, C5 L	HDG	Sweep Blasting	/		• **REMOPLAST UVC PL HS ES** [4] 120 µm	120 µm
C3 H, C4 M	Steel	Sa 2 1/2	• **REM-AK CORROPRIMER** 60 µm	• **REM-AK CORROPRIMER** 60 µm	• **REM AK DS GLIMMER EXPRESS** 80 µm	200 µm
C2 H, C3 M, C4 L	HDG	Sweep Blasting	/		• **REM AQUA PLUS** 80 µm	80 µm
C2 H, C3 M, C4 L	Steel	Sa 2 1/2	• **REMOPLAST PRIMER** 60 µm		• **REMOPLAST UVC GLIMMER** 60 µm	120 µm
C2 H, C3 M, C4 L	Steel	Sa 2 1/2	/		• **REMOPLAST UVC PL HS ES** [3] 120 µm	120 µm
C2 H, C3 M	HDG	Sweep Blasting	/		• **REM AQUA LAC DS-GLIMMER** 80 µm	80 µm
C2 H	Steel	Sa 2 1/2	• **REM-AK CORROPRIMER** 80 µm		• **REM AK DS GLIMMER EXPRESS** 80 µm	160 µm
C2 H	Steel	Sa 2 1/2	• **REM AQUA PLUS SZ PRIMER** 80 µm		• **REM AQUA PLUS SZ PRIMER** 80 µm	160 µm

1) Surface preparation acc. ISO 12944-5 and ISO 8501-1
2) NDFT (NOMINAL DRY FILM THICKNESS) acc. ISO 12944-5
3) Acceleration with Remoplast UVC Accelerator or Remoplast UVC PL HS ES FAST
4) Accelerated version not suitable

The selection of system depends on the Corrosivity Class of the environment to which the object will be exposed (ISO 12944-2) and the predicted durability (ISO 12944-1). See page 169 (Table 1) for more details. Kansai Helios offers many other metal protection systems that can meet your specific requirements. Please contact your local representative for further information.

Corrosivity acc. ISO 12944-2

C5	very high
C4	high
C3	medium
C2	low

Durability acc. ISO 12944-1

VH	very high	> 25 years
H	high	15 – 25 years
M	medium	7 – 15 years
L	low	up to 7 years

Primer

REMOPLAST TL GLIMMER
2-K high solid epoxy intermediate or topcoat

- containing micaceous iron oxide
- good resistance to chemicals and oil
- high abrasion resistance

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, bridges.
SUBSTRATE / SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting Primer: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	210 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	EP-Härter Remoplast
MIXING RATIO:	weight: 6:1, volume: 3:1
COLOUR SHADE:	DB colour shades
PACKAGING:	Component A: 24 kg Component B: 4 kg

REMOPLAST EP ZINK
2-K high solid zinc rich epoxy primer

- very good corrosion protection up to C5 very high

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, bridges, hydraulic steel constructions.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush or airless-spraying
CONSUMPTION:	310 g/m² for 70 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	EP-Härter Remoplast
MIXING RATIO:	weight: 20:1, volume: 6.4:1
COLOUR SHADE:	zinc grey
PACKAGING:	Component A: 20 kg Component B: 1 kg

REM 61 PRIMER
2-K epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- excellent adhesion on hot-dip galvanized steel and aluminium
- fast curing

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Very good hardness, elasticity and resistance to solvents; therefore suitable as universal primer.
SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1 Aluminium: mat grinding
APPLICATION:	Brush, roller, conventional spraying, airless-spraying or electrostatic spraying
CONSUMPTION:	180 g/m² for 60 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	EP-Härter Remoplast
MIXING RATIO:	weight: 6:1, volume: 3.5:1
COLOUR SHADE:	oak coloured ca. RAL 1002, lightgrey ca. RAL 7035, red-brown and white
PACKAGING:	Component A: 24 kg Component B: 4 kg

REMOPLAST MSR ULTRAPRIMER
2-K ultra high solid epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- fast curing and recoatability
- high build application
- suitable even at low temperature down to 0°C.
- good adhesion on hot-dip galvanized steel

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plant constructions, bridges, metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	188 g/m² for 100 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	Remoplast Speed Hardener
MIXING RATIO:	weight: 10:1, volume: 5.5:1
COLOUR SHADE:	lightgrey ca. RAL 7035, red-brown
PACKAGING:	Component A: 27.0 kg Component B: 2.7 kg

REM AQUAPOX S31
2-K water based epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- very fast curing and recoatability
- excellent adhesion on steel and sandblasted steel

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, transformers.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush, roller, conventional spraying or airless-spraying
CONSUMPTION:	183 g/m² at 60 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	Hardener APS 31
MIXING RATIO:	weight: 3:1, volume: 2.3:1
COLOUR SHADE:	red-brown, stone-grey
PACKAGING:	Component A: 21 kg Component B: 7 kg

REMOPLAST SPEED DRY
2-K high solid epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- very fast curing and recoatability
- high build application

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plant constructions, metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	214 g/m² 100 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	Remoplast Speed Hardener
MIXING RATIO:	weight: 12:1, volume: 7:1
COLOUR SHADE:	medium grey ca. RAL 7004, redbrown
PACKAGING:	Component A: 32.4 kg Component B: 2.7 kg

REMOPLAST PRIMER
2-K epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- excellent adhesion on iron and steel
- fast curing

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and industrial atmosphere e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 acc. ISO 8501-1
APPLICATION:	Brush, roller, conventional spraying or airless-spraying
CONSUMPTION:	230 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	Remoplast Härter
MIXING RATIO:	weight: 6:1, volume: 3.3:1
COLOUR SHADE:	Crème-white, light-grey, red-brown
PACKAGING:	Component A: 24 kg Component B: 4 kg

REM-AK CORROPRIMER
1-K alkyd coating

- containing zinc phosphate
- primer with good anti-corrosive properties
- excellent adhesion on iron and steel
- fast curing

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and industrial atmosphere e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 acc. ISO 8501-1
APPLICATION:	Brush, roller, concentional spraying or airless-spraying
CONSUMPTION:	110 g/m² for 40 µm
THINNER:	Verdünnung/Thinner 500 - slow Verdünnung/Thinner 87052 - fast
HARDENER:	/
COLOUR SHADE:	grey ca. RAL 7011, red-brown, lightgrey ca. RAL 7035, other shades on request
PACKAGING:	28 kg

REM AQUA PLUS SZ PRIMER

1-K waterborne acrylic primer with anti-corrosive pigments

- for direct application on hot-dip galvanized steel and direct on steel

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and shore near atmosphere. e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding.
SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting preferred Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush or airless-spraying
CONSUMPTION:	196 g/m² for 70 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	/
COLOUR SHADE:	ca. RAL 7001, RAL 6019, other shades on request
PACKAGING:	30 kg

Intermediate Coat

REMOPLAST HS UVC NUS

2-K high solid polyurethane top coat

- good weathering resistance
- high chemical and high abrasion resistance
- fast drying
- approved according RVS 15.05.11.

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere. e.g. metal facades, steel halls, industrial plants, bridges, silo.
SUBSTRATE / SURFACE PREPARATION:	Primers/Intermediate coats: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	200 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 200
HARDENER:	PU-Härter 400 UVC
MIXING RATIO:	weight: 10:1, volume: 6,1:1
COLOUR SHADE:	DB (MIO)
GLOSS:	silky gloss
PACKAGING:	Component A: 10 kg Component B: 1 kg

REMOPLAST MSR ULTRA IC

2-K ultra high solid epoxy intermediate or topcoat

- containing micaceous iron oxide
- good resistance to chemicals and oil
- high abrasion resistance
- fast drying
- suitable even at low temperature down to 0 °C

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, bridges.
SUBSTRATE / SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting Primer: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	194 g/m² for 100 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	Remoplast Speed Hardener
MIXING RATIO:	weight: 10:1, volume: 5.5:1
COLOUR SHADE:	medium grey ca. RAL 7001, beigegrey ca. RAL 7032
PACKAGING:	Component A: 27.0 kg Component B: 2.7 kg

REMOPLAST HS-TL GLIMMER NUS

2-K ultra high solid epoxy intermediat coat

- containing micaceous iron oxide
- fast drying
- high build up to 180 µm
- approved according RVS 15.05.11.

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, bridges.
SUBSTRATE / SURFACE PREPARATION:	Primers: free from any contaminations
APPLICATION:	Roller or airless-spraying
CONSUMPTION:	200 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 400
HARDENER:	Remoplast HS Rapid Härter
MIXING RATIO:	weight: 9:1, volume: 4.4:1
COLOUR SHADE:	DB colour shades
PACKAGING:	Component A: 18 kg Component B: 2 kg

REM AQUAPOX S31

2-K water based epoxy primer

- containing zinc phosphate
- primer with good anti-corrosive properties
- very fast curing and recoatability
- excellent adhesion on steel and sandblasted steel

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere e.g. steel halls, industrial plants, transformers.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush, roller, conventional spraying or airless-spraying
CONSUMPTION:	183 g/m² for 60 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	Hardener APS 31
MIXING RATIO:	weight: 3:1, volume: 2.3:1
COLOUR SHADE:	red-brown, stone-grey
PACKAGING:	Component A: 21 kg Component B: 7 kg

REM-AK CORROPRIMER

1-K alkyd coating

- containing zinc phosphate
- primer with good anti-corrosive properties
- excellent adhesion on iron and steel
- fast curing

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and industrial atmosphere e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SURFACE PREPARATION:	Steel: Blast cleaning, Sa 2 acc. ISO 8501-1
APPLICATION:	Brush, roller, concentional spraying or airless-spraying
CONSUMPTION:	110 g/m² for 40 µm
THINNER:	Verdünnung/Thinner 500 - slow Verdünnung/Thinner 87052 - fast
HARDENER:	/
COLOUR SHADE:	grey ca. RAL 7011, red-brown, lightgrey ca. RAL 7035, other shades on request
PACKAGING:	28 kg

Top Coat

REMOPLAST HS UVC NUS

2-K high solid polyurethane top coat

- good weathering resistance
- high chemical and high abrasion resistance
- fast drying
- approved according RVS 15.05.11.

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere. e.g. metal facades, steel halls, industrial plants, bridges, silo.
SUBSTRATE / SURFACE PREPARATION:	Primers/Intermediate coats: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	200 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 200
HARDENER:	PU-Härter 400 UVC
MIXING RATIO:	weight: 10:1, volume: 6,1:1
COLOUR SHADE:	DB (MIO)
GLOSS:	silky gloss
PACKAGING:	Component A: 10 kg Component B: 1 kg

REMOPLAST UVC PL HS ES

2-K high solid polyurethane top coat and direct to metal coat

- good weathering resistance
- DTM up to C3 high
- acceleration with Remoplast UVC Accelerator

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere. e.g. metal facades, steel halls, industrial plants, bridges, silos.
SUBSTRATE / SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting preferred Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1 Primers/Intermediate coats: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	162 g/m² for 80 µm
THINNER:	Verdünnung/Thinner 200 Verdünnung/Thinner 222 Verdünnung/Thinner 87052
HARDENER:	PU-Härter 400 UVC
MIXING RATIO:	weight: 10:1, volume: 7:1
COLOUR SHADE:	RAL or NCS
GLOSS:	silky gloss, matt
PACKAGING:	Component A: 10 kg and 30 kg Component B: 1 kg and 3 kg

REMOPLAST AQUA UVC
2-K water based polyurethane top coat

- good weathering resistance
- high chemical and high abrasion resistance
- fast drying

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere. e.g. metal facades, steel halls, industrial plants, transformers.
SUBSTRATE / SURFACE PREPARATION:	Primers/Intermediate coats: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	200 g/m² for 70 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	PU-Härter 440
MIXING RATIO:	weight: 10:1, volume: 6,8:1
COLOUR SHADE:	RAL or NCS
GLOSS:	silky gloss
PACKAGING:	Component A: 10 kg Component B: 1 kg

REM AK DS GLIMMER EXPRESS
1-K alkyd combination coating

- high build
- fast drying

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and industrial atmosphere e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, outside protection of silos.
SUBSTRATE / SURFACE PREPARATION:	1-K Alkyd Primer: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	164 g/m² for 60 µm
THINNER:	Verdünnung/Thinner 500
HARDENER:	/
MIXING RATIO:	/
COLOUR SHADE:	RAL or NCS
GLOSS:	semi-gloss
PACKAGING:	20 kg

REM AQUA PLUS
1-K waterborne acrylic top coat

- for direct application on hot-dip galvanized steel
- good weather resisting, gloss and colour stability
- good salinity resistance
- fast drying and recoatable

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and coast atmosphere. e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, bridge rails.
SUBSTRATE / SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting preferred Primer: free from any contaminations
APPLICATION:	Brush or airless-spraying
CONSUMPTION:	198 g/m² for 70 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	/
MIXING RATIO:	/
COLOUR SHADE:	RAL
GLOSS:	silk matt
PACKAGING:	30 kg

REMOPLAST UVC GLIMMER
2-K high solid polyurethane top coat

- good weathering resistance
- high chemical and high abrasion resistance

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural, coast and industrial atmosphere. e.g. metal facades, steel halls, industrial plants, bridges.
SUBSTRATE / SURFACE PREPARATION:	Primers/Intermediate coats: free from any contaminations
APPLICATION:	Brush, roller or airless-spraying
CONSUMPTION:	200 g/m² for 80 µm (RAL), 230 g/m² for 80 µm (MIO)
THINNER:	Verdünnung/Thinner 200 Verdünnung/Thinner 222 Verdünnung/Thinner 87052
HARDENER:	PU-Härter 400 UVC
MIXING RATIO:	weight (RAL, MIO): 10:1 volume (RAL): 8:1 volume (DB, MIO): 6,7:1
COLOUR SHADE:	RAL, DB or NCS
GLOSS:	silky gloss
PACKAGING:	Component A: 10 kg Component B: 1 kg

REM AQUA LAC DS-GLIMMER

1-K waterborne acrylic top coat

- for direct application on hot-dip galvanized steel
- good weather resisting, gloss and colour stability

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural atmosphere. e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding, bridge rails.
SUBSTRATE / SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting preferred Primer: free from any contaminations
APPLICATION:	Brush or airless-spraying
CONSUMPTION:	172 g/m² for 70 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	/
MIXING RATIO:	/
COLOUR SHADE:	RAL, ICAO-red and white
GLOSS:	silk matt
PACKAGING:	30 kg

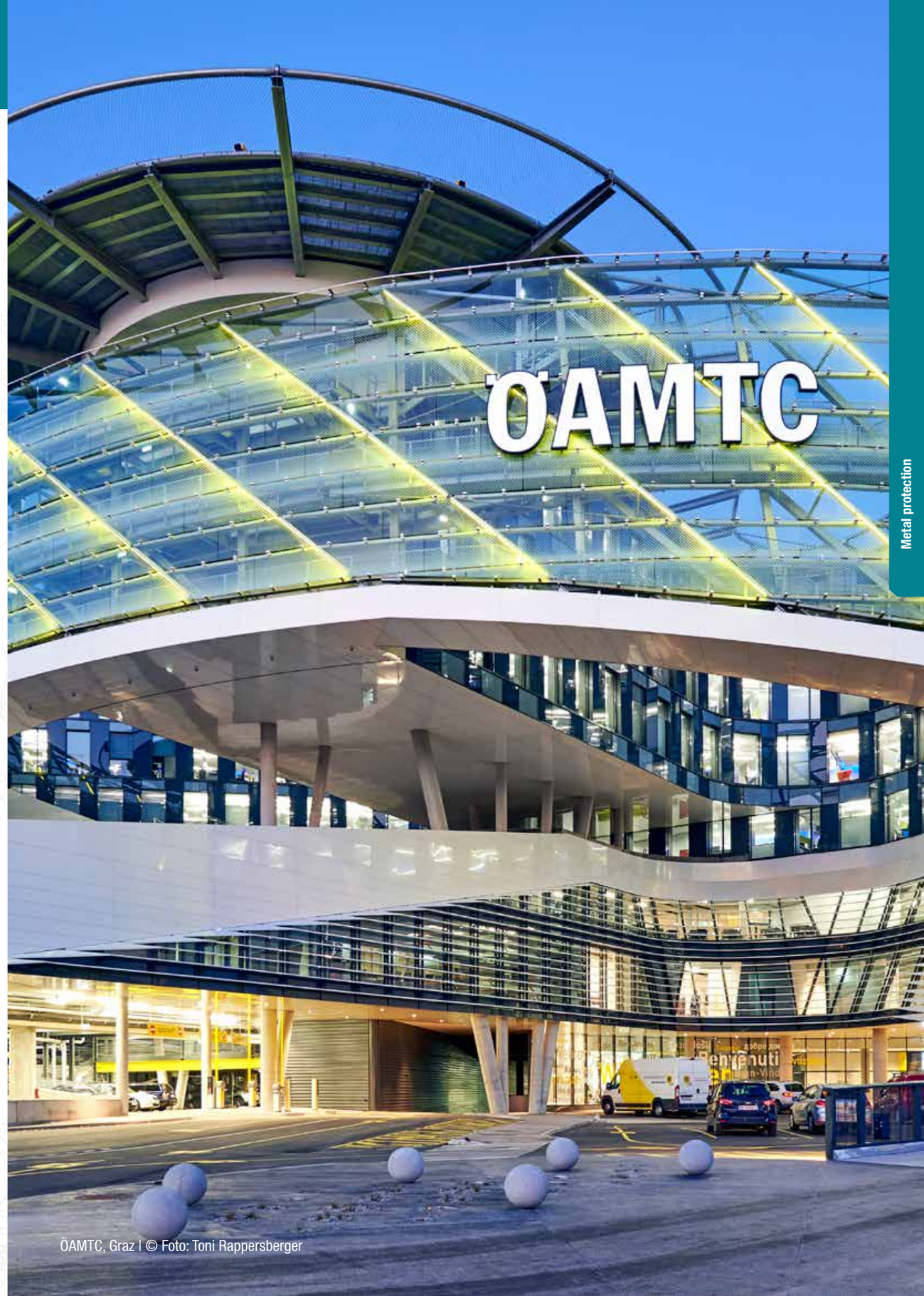
REM AQUA PLUS SZ PRIMER

1-K waterborne acrylic primer with anti-corrosive pigments

- for direct application on hot-dip galvanized steel and direct on steel

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	Steel constructions in rural and shore near atmosphere. e.g. metal facades, roofs, lattice masts, wall- and ceiling cladding.
SURFACE PREPARATION:	Hot-dip galvanized steel: sweep blasting preferred Steel: Blast cleaning, Sa 2 1/2 acc. ISO 8501-1
APPLICATION:	Brush or airless-spraying
CONSUMPTION:	196 g/m² for 70 µm
THINNER:	Water with not more than 15 degrees hardness
HARDENER:	/
COLOUR SHADE:	ca. RAL 7001, RAL 6019, other shades on request
PACKAGING:	30 kg



ÖAMTC, Graz | © Foto: Toni Rappersberger

4.2.2 POWDER COATINGS

CORROSION CLASS ACCORDING TO ISO 12944-2	DURABILITY ACCORDING TO ISO 12944-1	SUBSTRATE	SUBSTRATE PREPARATION	PRIMER	TOP COAT		DRY FILM THICKNESS (DFT), µm
					exterier	interier	
PREMIUM C5	High 15–25 years	Steel	sand blasting	• **CPC 60-1 Zn primer**	• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	110 – 160
			Zn fosfat	• **CPC 60-3 primer**	• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	110 – 160
		Steel-galvanized	sanding / swipping preheating (200 °C)	• **CPC 60-3 primer**	• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	110 – 160
		Aluminum	chromating	• **CPC 60-3 primer**	• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	110 – 160
	Medium 7–15 years	Steel	Zn fosfat		• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	70 – 150
		Aluminum	chromating		• **CPC 22** • CPC 21 • CPC 24 • CPC 50	• **CPC 41** • CPC 42 • CPC 44	70 – 150
STANDARD C4	High 15–25 years	Steel	Zn fosfat		• **CPC 21** • CPC 24 • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
		Aluminum	chromating		• **CPC 21** • CPC 24 • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
	Medium 7–15 years	Steel	sand blasting		• **CPC 21** • CPC 24 • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
	Low up to 7 years	Steel	Fe fosfat		• **CPC 24** • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
		Aluminum	degreasing		• **CPC 21** • CPC 24 • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
ECONOMICAL C3	High 15–25 years	Steel	Fe fosfat		• **CPC 24** • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150
	Medium 7–15 years	Steel	degreasing	• **CPC 60-3 primer**	• **CPC 24** • CPC 20	• **CPC 41** • CPC 42 • CPC 44	110 – 160
						• **CPC 41-3** • CPC 41-4	70 – 150
					• **CPC 20-4**		
	Low up to 7 years	Steel Aluminum	degreasing		• **CPC 24** • CPC 20	• **CPC 41** • CPC 42 • CPC 44	70 – 150

Primer

CPC 60-1 Zn primer
Epoxy powder coating

- epoxy primer for anti-corrosion protection
- high proportion of zinc

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	protection of metal surfaces against corrosion, especially in systems without chemical pretreatment (phosphate, zinc). It achieves the best results on sand-blasted surfaces. Due to the nature of the binder (epoxy resin), it is not UV-resistant and needs to be covered for external exposure with a suitable final powder coating (polyester, PU).
SURFACE PREPARATION:	Aluminum: degreasing Galvanized surface: degreasing, sanding Iron: degreasing Previous chemical pretreatment further improves corrosion protection
CONSUMPTION:	4 – 6 m^2/kg at a thickness 60 µm
SURFACE:	smooth
APPEARANCE:	semi-matte
COLOUR SHADE:	grey
APPLICATION:	electrostatic spraying
HARDENING:	15 min. / 160°C or 10 min. / 180°C
PACKAGING:	20 kg

CPC 60-3 primer
Epoxy powder coating

- epoxy primer for anti-corrosion protection
- without zinc
- good resistance to solvents and chemicals

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	protection of metal surfaces against corrosion, especially in systems without chemical pretreatment (phosphate, zinc). We recommend it especially for smooth surfaces, because it achieves similar protective results as the Zn primer. Due to the nature of the binder (epoxy resin), the primer is not UV resistant and it needs to be covered with a suitable final powder coating (polyester, PU) for external exposure.
SURFACE PREPARATION:	Aluminum: degreasing Galvanized surface: degreasing, sanding Iron: degreasing Previous chemical pretreatment further improves corrosion protection
CONSUMPTION:	7 – 9 m^2/kg at a thickness 70 µm
SURFACE:	smooth
APPEARANCE:	matt
COLOUR SHADE:	CPC 60-3 grey B 68 - grey, cca. RAL 7036, CPC 60-3 primer beli – light grey ca. RAL 7047
APPLICATION:	electrostatic spraying
HARDENING:	20 min. / 180°C. In the case of covering with a covering powder, it is sufficient 10 min / 180°C, because the missing 10 minutes is gained during the curing of the cover layer.
PACKAGING:	20 kg

Top coat

CPC 20
Polyester powder coating

- good resistance to atmospheric influences
- very good mechanical properties
- uniform pouring
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 20 system is a powder coating based on polyester resin hardened with hydroxyalkylamide (Primide). They are intended to protect objects that are exposed to external influences (direct sunlight), such as: agricultural machinery and garden tools, camping equipment and garden furniture, car parts, bicycles...
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth with effect
APPEARANCE:	gloss, semi-matt, matte
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m^2/kg at a thickness 70 µm
HARDENING:	CPC 20-1: 10 min. / 180°C or 15 min / 175°C CPC 20-3: 20 min. /180 °C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades
PACKAGING:	15 or 20 kg

CPC 21
Polyester powder coating

- Qualicoat certificate
- very good resistance to weather influences
- very good UV resistance
- very good mechanical properties
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 21 system is a powder coating based on polyester resin hardened with hydroxyalkylamide (Primide). They are intended to protect objects that are exposed to external influences (direct sunlight), such as: facade elements, aluminum profiles, agricultural machinery and garden tools, camping equipment and garden furniture, automotive parts, bicycles... Compared to CPC 20, they offer better UV resistance - gloss retention and shade stability.
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth
APPEARANCE:	gloss, matt
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m^2/kg at a thickness 70 µm
HARDENING:	CPC 21-1: 10–20 min. / 180°C or 7-15 min / 190°C CPC 21-3: 20 min. / 180 °C or 15 min / 190°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades, other shades on demand
PACKAGING:	20 kg

CPC 22
Polyester powder coating

- excellent weather resistance
- excellent UV resistance
- good mechanical properties
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 22 system is a powder coating based on polyester resin hardened with hydroxyalkylamide (Primide). They are intended to protect objects that are exposed to external influences (direct sunlight), such as: facade elements, aluminum profiles, agricultural machinery and garden tools, camping equipment and garden furniture, automotive parts, bicycles... Of all the CPC powder coatings, the CPC 22 group has the highest gloss and shade durability.
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth
APPEARANCE:	gloss
APPLICATION:	electrostatic spraying
CONSUMPTION:	7 – 9 m²/kg at a thickness 70 µm
HARDENING:	CPC 22-1: 15–30 min. / 180°C or 10–20 min / 190°C CPC 22-3: 20–40 min. / 180 °C or 10–20 min / 200°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades, other shades on demand
PACKAGING:	20 kg

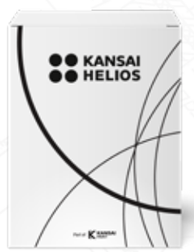
CPC 24
Polyester powder coating

- very good weather resistance influences
- very good UV resistance
- good mechanical properties
- good stability during storage
- Qualicoat certificate (glossy coatings)

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 24 system is a powder coating based on polyester resin hardened with hydroxyalkylamide (Primide). They have a higher reactivity than standard industrial polyesters (CPC 20) – which enables curing at lower temperatures (160°C vs 180°C). They are intended to protect objects that are exposed to external influences (direct solar radiation), such as: agricultural machinery and garden tools, camping equipment and garden furniture, car parts, two-wheelers...
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth with effect
APPEARANCE:	gloss, semi-matt
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m²/kg at a thickness 70 µm
HARDENING:	CPC 24-1: 15 min. / 160°C or 7 min / 190°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades
PACKAGING:	20 kg

CPC 41
Polyester powder coating



- very good mechanical properties
- uniform pouring
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 41 system is a powder coating based on polyester and epoxy resin. They are intended to protect objects that are not exposed to external influences, such as: metal furniture, electrical and small household appliances. For refrigerators and washing machines CPC 42 and CPC 43 systems are used...
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth with effect
APPEARANCE:	gloss, semi-matt, matte
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m²/kg at a thickness 70 µm
HARDENING:	CPC 41-1: 10 min. / 180°C or 15 min / 175°C CPC 41-3: 20 min. /180 °C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades
PACKAGING:	15 or 20 kg

CPC 42
Polyester powder coating

- very good mechanical properties
- good resistance to household stains
- good resistance to detergent solutions detergents
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 42 system is a powder coating based on polyester and epoxy resin. They are intended to protect objects that are not exposed to external influences, such as: household appliances (refrigerators), electrical appliances... Compared to the CPC 41 group, they show better chemical resistance.
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth
APPEARANCE:	gloss, semi-matt
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m²/kg at a thickness 70 µm
HARDENING:	CPC 41-1: 20 min. / 160°C or 10 min / 180°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various shades
PACKAGING:	15 or 20 kg

CPC 44
Polyester powder coating

- good mechanical properties
- uniform pouring
- good stability during storage

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 44 system is a powder coating based on polyester and epoxy resin with accelerated hardening, which allows hardening at lower temperatures (160°C vs 180°C). They are intended to protect objects that are not exposed to external influences, such as e.g.: household appliances (white goods), electrical appliances...
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth with effect
APPEARANCE:	gloss, semi-matt
APPLICATION:	electrostatic or tribo spraying
CONSUMPTION:	7 – 9 m^2/kg at a thickness 70 µm
HARDENING:	CPC 44-1: 10 min. / 160°C or 20 min / 150°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades
PACKAGING:	20 kg

CPC 50
Polyester powder coating

- good resistance to weather influences
- good chemical resistance
- good elasticity
- uniform pouring

INSTRUCTIONS FOR USE

AREA OF APPLICATION:	The CPC 50 system is a polyurethane powder coating. They have a higher chemical resistance, compared to polyester powder coatings (CPC 21), which extends durability protection. They are intended for protection of objects exposed to external influences (direct sun radiation), such as: camping equipment and garden furniture, car parts, bicycles...
SURFACE PREPARATION:	Aluminium: yellow or green chromating Galvanized surface: transparent chromating Iron: zinc phosphate, thin iron phosphate or thick iron phosphate
SURFACE:	smooth
APPEARANCE:	gloss, semi-matt, matte
APPLICATION:	electrostatic spraying
CONSUMPTION:	7 – 9 m^2/kg at a thickness 70 µm
HARDENING:	CPC 50-1: 10–15 min. / 200°C the exact specification of the curing regime is indicated on the label
COLOUR SHADE:	various RAL and NCS shades
PACKAGING:	15 or 20 kg

Durability of the coating systems

Standard ISO 12944 – 1 defines three classes of durability of anti-corrosion coating systems:

- Low (L) up to 7 years
- Medium (M) 7 – 15 years
- High (H) 15 – 25 years
- Very High (VH) more than 25 years

TABLE 1: ENVIRONMENT CLASSIFICATION ACCORDING TO ISO 12944-2

Corrosion class according to ISO 12944-2	Durability according to ISO 12944-1		TYPICAL EXAMPLES OF ENVIRONMENTS AND STRUCTURES	
			Outdoors	Indoors
C1 very low				Heated buildings with a clean atmosphere e.g. offices, shops, schools, hotels
C2 low	low medium high very high	up to 7 years 7 – 15 years 15 – 25 years >25 years	Atmospheres with a low level of pollution, mostly countryside areas	Unheated premises, where condensation of moisture can occur, e.g. warehouses, sports halls
C3 medium	low medium high very high	up to 7 years 7 – 15 years 15 – 25 years >25 years	City and industrial atmosphere, moderate pollution with sulfur dioxide, seaside areas with low salinity	Production halls with high humidity and moderate air pollution, e.g. food industry, laundries, breweries, dairies
C4 high	low medium high very high	up to 7 years 7 – 15 years 15 – 25 years >25 years	Industrial areas and seaside areas with moderate salinity	Chemical plants, swimming pools, various vesselsand ports
C5 I industry	low medium high very high	up to 7 years 7 – 15 years 15 – 25 years >25 years	Industrial areas with high humidity and an aggressive atmosphere	Buildings or areas with an almost constant condensation of humidity and high pollution
C5 M seaside	low medium high very high	up to 7 years 7 – 15 years 15 – 25 years >25 years	Coastal and offshore areas with high salinity	Buildings or areas with an almost constant condensation of humidity and high pollution

The thicknesses for each coating system are given in the tables on p. 149 (wet coatings) and p. 163 (powder coatings).

397937 | 2024

KANSAI HELIOS

Helios TBLUS d.o.o.
Količevo 65, 1230 Domžale, Slovenia
T +386 1 722 40 00
projects@helios-group.eu
www.helios-profi.com

Member of KANSAI HELIOS Part of KANSAI PAINT

Follow us on: Helios Architectural

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

ISO 9001
ISO 14001
BUREAU VERITAS
Certification