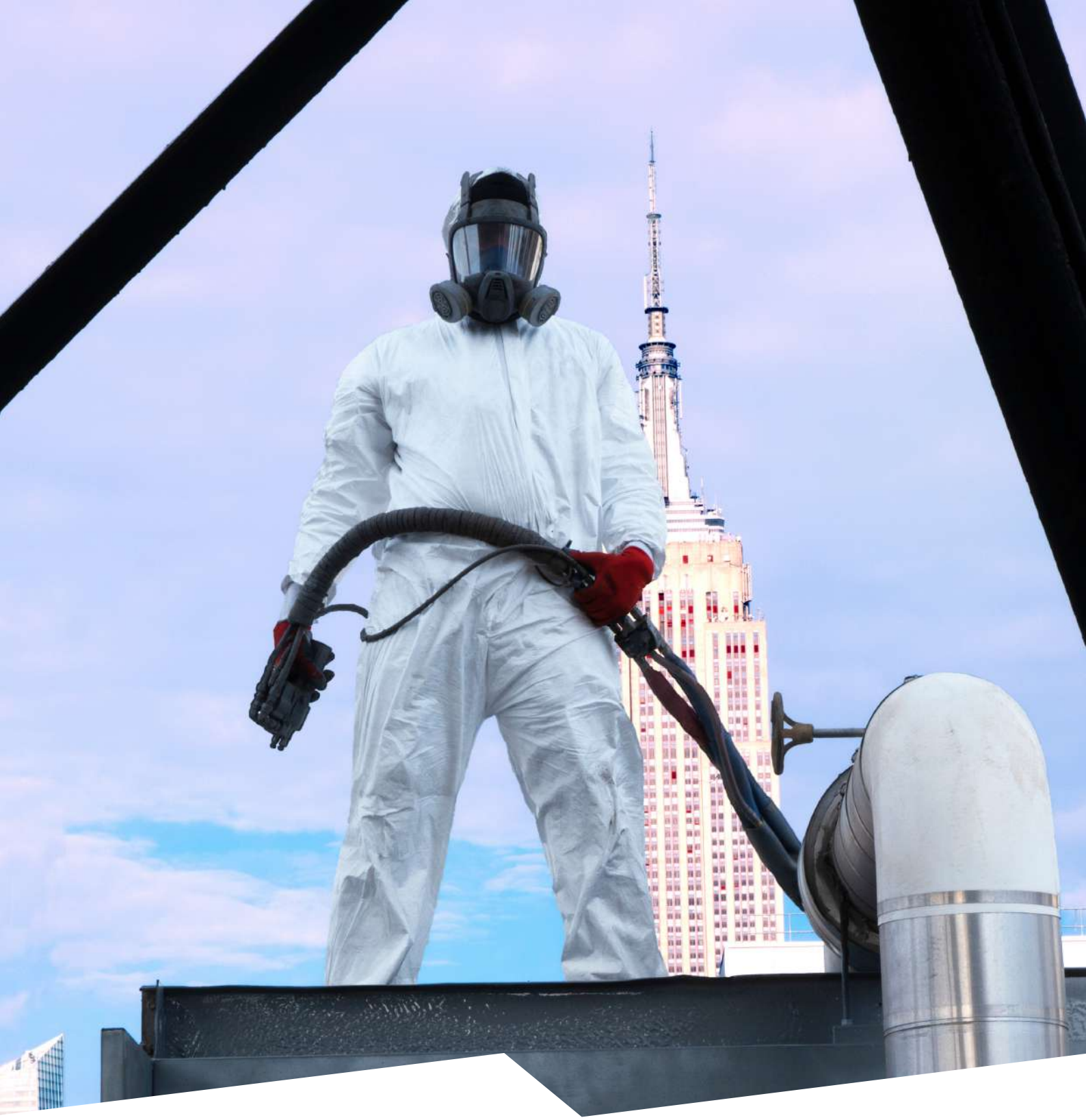


POLYUREA COATINGS

KANSAI HELIOS

POLYUREA IS A SOLVENT-FREE, **WATERPROOF PROTECTIVE COATING** THAT PROVIDES **SUPERIOR PROTECTION WITH MINIMAL ENVIRONMENTAL IMPACT**. IT IS RESISTANT TO HIGH TEMPERATURES, ABRASION, AND CHEMICALS, AND CAN BE APPLIED TO ALMOST ANY MATERIAL.

"DESIGNING EXCELLENCE"



POLYUREA COATINGS

KANSAI HELIOS Polyurea coatings are versatile protective materials offering exceptional durability and waterproofing, making them ideal for a wide range of applications in both industrial and construction sectors. KANSAI HELIOS provides tailored Polyurea systems for various uses: from primers for preparing all types of substrates, through Polyurea protective and waterproof coatings, to UV-stable polyaspartic topcoats (cold-applied Polyurea).

GLOBAL KNOW-HOW AND LOCAL SUPPORT

KANSAI HELIOS is one of Europe's leading manufacturers of industrial coatings, bleaching and cleaning chemicals, adhesives and sealants, high-quality resins, decorative paints, and coatings. As part of KANSAI PAINT, a global leader in the coatings industry, KANSAI HELIOS serves as the European center of excellence for the group. Cutting-edge coating technologies, an international team of experts, and a strong customer focus make KANSAI HELIOS your trusted partner across industries. We are committed to high-quality products, long-term partnerships, and reliable technical support. With modern, well-equipped production facilities and strategically positioned offices across Europe, KANSAI HELIOS serves customers in more than 60 countries worldwide. We share decades of experience with our partners through KANSAI HELIOS Master Classes — a learning and networking platform featuring webinars, IKI symposia, and technical training sessions.

"DESIGNING EXCELLENCE" – R&D AT THE HIGHEST LEVEL

The highest standards, extensive expertise, and passion for innovative solutions form the foundation of research and development within the KANSAI HELIOS Group. In our state-of-the-art laboratories, we drive progress and innovation. Looking ahead, our experienced R&D teams create, develop, and test high-performance coatings and paints, bleaching and cleaning chemicals, and adhesive and sealing materials that meet stringent future quality requirements—especially regarding environmental impact. KANSAI HELIOS Group is committed to sustainable development principles, relying on clean, energy-efficient production technologies and responsible resource management. Accordingly, environmental protection and ESG governance are central to our focus — not only in product development but throughout the entire value chain and across all areas of the Group.

PRIMERS FOR THE PREPARATION OF VARIOUS SUBSTRATES

BITUMINOUS SUBSTRATES

POLYUREA PRIMER PU 420

METAL SUBSTRATES

REMOPLAST MSR ULTRAPRIMER OR SHOP PRIMER E
(ANTI-CORROSION PRIMERS)

MINERAL SUBSTRATES

POLYUREA PRIMER EP 430

STAINLESS STEEL AND ALUMINUM SUBSTRATES

SHOP PRIMER E

POLYUREA PRIMER PU 420

One-component primer based on an isocyanate.

TECHNICAL DATA	
Spreading rate	0.18-0.23 l/m^2, depending on the substrate
Packaging	Tin plate container, 4 L
Storage	In dry and well ventilated space at temperatures from +5 °C to +30 °C. Protect from direct sunlight.
Shelf life	12 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density	1.010 g/cm^3 (EN ISO 2811-1)
Viscosity	11 - 15 sec (EN ISO:2019 4mm/23°C)
Solid content	55-57% by weight (EN ISO 3251)
Application temperature	+10°C do +30°C
Relative air humidity	<75%

DRYING TIME

Touch dry: approx. 4 hours
Tack free time: approx. 8 hours
Full cure: approx. 3 days

Note: Data were obtained at 23 °C and 50% relative humidity. The indicated times are approximate and will vary depending on ambient conditions, particularly temperature and relative humidity.

APPLICATION AREA

Improves adhesion of Polyurea and polyurethane coatings on existing bituminous substrates.

DRYING

Approx. 8–24 hours under standard conditions. Drying time depends on temperature and relative humidity.

PRIMERS FOR THE PREPARATION OF VARIOUS SUBSTRATES

POLYUREA PRIMER EP 430

Two-component epoxy primer.

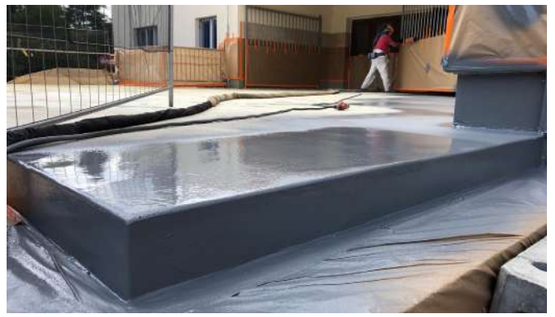
TECHNICAL DATA	
Spreading rate	0.30-0.50 kg/m^2 – per coat, depending on substrate condition (roughness, absorbency, temperature, etc.)
Packaging	Component A – Tin plate container, 6.5 kg Component B – Tin plate container, 3.5 kg
Storage	In dry and well ventilated space at temperatures from +5 °C to +30 °C. Protect from direct sunlight.
Shelf life	24 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density	Component A: 1.11 - 1.12 g/cm^3 (EN ISO 2811-1) Component B: 0.98 - 1.00 g/cm^3 (EN ISO 2811-1)
Viscosity	Component A: 800-1000 mPas (RVT ISO 2555 A4/50/23°) Component B: 700-1200 mPas (RVT ISO 2555 A4/50/23°)
Mixing Ratio (A:B)	6.5:3.5 (by weight)
Pot life	30 min
Application temperature	+10°C do +30°C
Relative air humidity	<65%

DRYING TIME

Touch dry: approx. 10 hours
Tack free time: approx. 24 hours
Full cure: approx. 7 days

Note: Data were obtained at 23 °C and 50% relative humidity. The indicated times are approximate and will vary depending on ambient conditions, particularly temperature and relative humidity.



APPLICATION AREA

- Improves adhesion of polyurea, epoxy, and polyurethane coatings on mineral substrates .
- Moisture barrier – suitable for cementitious substrates with moisture content up to 6% (measured by carbide method).
- For strengthening cement, anhydrite, and old substrates, repairing cracks, and improving adhesion on residual old adhesive layers.

DRYING

Approx. 10–24 hours under standard conditions. Drying time depends on temperature and relative humidity.

REMOPLAST MSR ULTRAPRIMER

Two-component, anti-corrosion epoxy primer.

TECHNICAL DATA	
Theoretical spreading rate	5.2 m^2 / kg / 100 µm
Packaging	Component A – Tin plate container, 2.7 kg Component B – Tin plate container, 2.7 kg
Storage	In dry and well ventilated space at temperatures from +5 °C to +35 °C. Protect from direct sunlight.
Shelf life	24 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density (mixture)	Approx. 1.55 ± 0.1 g/cm^3 (EN ISO 2811-1)
Solids content (mixture)	80 ± 2 % by volume (EN ISO 3251)
Mixing Ratio (A:B)	10:1 (by weight)
Pot life (20°C)	4 hours
Drying time at 80 µm (23°C): Dust dry	 35 minutes
Intercoat interval (25°C):	Min: 6 hours Max: 7 days
Film thickness	80 - 100 µm, depending on the application method
Temperature resistance	Short-term: up to 150°C Constant load: max 120°C
Thinning	Not required; use Thinner 400 only when applying below 20 °C (max. 3%)
Application method	Brush, roller, or airless-spray
Application temperature	+5°C do +30°C

APPLICATION AREA

- Improves adhesion of polyurea, epoxy, and polyurethane coatings on steel and zinc substrates.
- Suitable for application at low temperatures down to 0 °C.
- Shades: red-brown and light gray, approximately RAL 7035.

PRIMERS FOR THE PREPARATION OF VARIOUS SUBSTRATES

SHOP PRIMER E

Two-component anti-corrosive epoxy shop primer.

TECHNICAL DATA	
Spreading rate	11.6 m^2 / l / recommended; 9.7 m^2 / l / maximum
Packaging	Component A – Tin plate container, 11 L Hardener 10-15 – Tin plate container, 8.8 L
Storage	In dry and well ventilated space at temperatures from +5 °C to +35 °C. Protect from direct sunlight.
Shelf life	24 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density (mixture)	1.1 - 1.2 g/cm^3 (EN ISO 2811-1)
Viscosity (mixture)	55 – 65 sec (EN ISO:2019 4mm/20°C)
Mixing Ratio (A:B)	2:1 (by weight)
Pot life (20°C)	Min. 8 hours
Drying time (20°C): Dust dry Touch dry	 10 minutes 20 minutes
Intercoat interval (25°C):	Min: 10 min Max: no limitation
Dry film thickness Wet film thickness	25 µm (recommended) - 30 µm (maximum) 90 µm (recommended) - 105 µm (maximum)
Temperature resistance	Short-term: up to 140°C; long-term: max 120°C
Thinning	Not required
Application method	Brush, roller, airless-spray or air-spray
Application temperature	+10°C do +30°C

APPLICATION AREA

- Improves adhesion of polyurea, epoxy, and polyurethane coatings on steel, zinc, aluminum, and other colour metal substrates.
- Fast-drying properties.
- Shades: oxide red and gray.

POLYUREA PROTECTIVE COATINGS

KANSAI HELIOS OFFERS TWO POLYUREA COATING FORMULATIONS: **POLYUREA STANDARD** AND **POLYUREA FLEX**. EACH FORMULATION HAS SPECIFIC ADVANTAGES THAT MAKE THEM SUITABLE FOR DIFFERENT APPLICATIONS.

Two-component, aromatic, VOC-free

Fast drying – curing within seconds

Resistance to chemicals and temperature variations

Resistance to chemicals and temperature changes

Applicable to concrete, metal, wood and other substrates

POLYUREA STANDARD – VERSATILE PROTECTION FOR WIDE RANGE OF APPLICATION

Polyurea Standard is a high-performance coating offering excellent mechanical resistance, chemical stability, and rapid application. It is ideal for protective coatings in construction, infrastructure, petrochemical industry, and other demanding sectors.

APPLICATION INSTRUCTIONS

- Apply using a two-component high-pressure spray machine.
- The application temperature of both components must be 60-80°C.
- Apply continuously on horizontal and vertical surfaces in two thin coats.
- The second coat should be applied perpendicular to the first.

APPLICATION

- Industrial floors, garages, loading areas, ramps
- Wastewater treatment plants and related facilities
- Water and fuel storage tanks
- External pipe protection

TECHNICAL DATA	
Spreading rate	approx. 2.2 kg/m^2 (2 mm thickness)
Packaging	Component A – 225 kg, 22.5 kg (metal drums) Component B – 204 kg, 20.4 kg (metal drums)
Storage	In dry and well ventilated space at temperatures from +5 °C to +30 °C. Protect from direct sunlight.
Shelf life	12 months

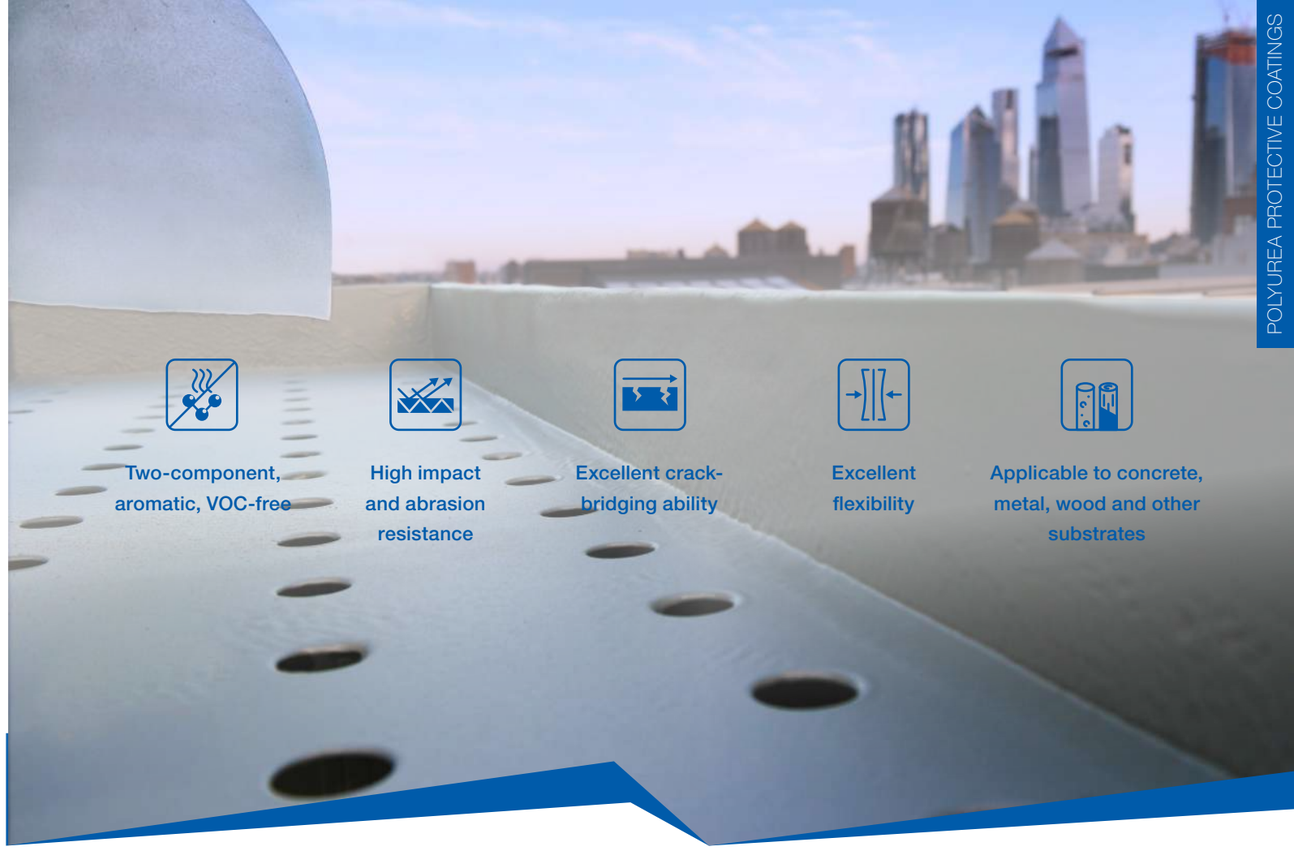
PHYSICAL AND CHEMICAL PROPERTIES	
Mass density	Component A: 1.11 g/cm^3 (EN ISO 2811-1) Component B: 1.02 g/cm^3 (EN ISO 2811-1)
Viscosity	Component A (ISO): 600 – 800 mPas (RVT ISO 2555 A2/50/23°C) Component B (smola): 400–600 mPas (RVT ISO 2555 A2/50/23°C)
Mixing ratio (by volume)	100/100
Gel time (23°C, 60% R.H.)	approx. 6 sec
Tack free time (23°C, 60% R.H.)	approx. 15 sec
Intercoat interval	min: 2 hours at 23 °C and 60% R.H. max: 24 hours at 23 °C and 60% R.H.
Application temperature	+5°C do +40°C
Substrate temperature	+5°C do +50°C
Relative air humidity	<75%
Gloss (60°C)	80-85
Chemical resistance	A reference list is available upon request - please contact us
Available shades	White and gray; other shades on request

MECHANICAL PROPERTIES OF THE CURED COATING	
Hardness (Shore D)	47 (EN ISO 868)
Elongation at break	min 300 % (EN ISO 37)
Tensile strength	min 20,0 N/mm^2 (EN ISO 37)
Tear resistance	min 65 N/mm (EN ISO 34-1)

CHARACTERISTICS ACCORDING TO EN 1504-2

PROPERTIES	Test method	Product performance	EN 1504-2 requirement
Abrasion resistance	EN ISO 5470-1	<122.9 mg	Weight loss < 3000 mg (H22/1000g/1000c)
Permeability to CO_2	EN 1062-6	s_d = 117 m (medium value)	s_d ≥ 50 m
Permeability to water vapor	EN ISO 7783	Class I s_d = 4.41 m (medium value)	Class I sd < 5 m Class II 5 m ≤ sd ≤ 50 m Class III sd > 50 m
Capillary absorption and permeability to water	EN 1062-3	w = 0.0 kg/m^2 x h$^{-0,5}$ (medium value)	w<0.1 kg/m^2 x h$^{-0,5}$
Resistance to severe chemical attack CH_3OH, (60% toluene, 30% xylene, 10%*methylnaphthalene H_2SO_4 (20%), KOH (20%), NaCl (20%), CH_3COOH (10%)	EN 13529	Shore A <50% Class I Class II Class II	Shore A (reduction in hardness) <50%, 24h after removing the coating from the test liquid) Class I: 3 days without pressure Class II: 28 days without pressure Class III: 28 days with pressure
Impact resistance	EN ISO 6272-1	Class II 14.4 Nm (medium value)	After loading no cracks and delamination Class I: ≥ 4 Nm Class II: ≥ 10 Nm Class III: ≥ 20 Nm
Adhesion strenght by pull-off test	EN 1542	3.0 N/mm^2 (medium value)	≥1.5 N/mm^2
Reaction to fire	EN 13501-5	D_{fl}-s1	EuroClass

POLYUREA PROTECTIVE COATINGS



POLYUREA FLEX – HIGH FLEXIBILITY WITH EXCELLENT RESISTANCE

Polyurea Flex is specially designed for demanding applications where maximum elasticity and resistance are essential. It is ideal for surfaces exposed to dynamic loads, vibrations, or temperature changes.

APPLICATION INSTRUCTIONS

- Apply using a two-component high-pressure spray machine.
- The application temperature of both components must be 60-80°C.
- Apply continuously on horizontal and vertical surfaces in two thin coats.
- The second coat should be applied perpendicular to the first.

APPLICATION

- Terraces, stadium stands
- Water and fuel tanks
- Bridges, stadiums, airports, and railways
- Mineral roof surfaces, green roofs, inverted roofs, metal roofs
- Water parks, playgrounds, swimming pools, theme and decorative parks

TECHNICAL DATA	
Spreading rate	approx. 2.2 kg/m^2 (2 mm thickness)
Packaging	Component A – 225 kg, 22.5 kg (metal drums) Component B – 204 kg, 20.4 kg (metal drums)
Storage	In dry and well ventilated space at temperatures from +5 °C to +30 °C. Protect from direct sunlight.
Shelf life	12 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density	Component A: 1.11 g/cm^3 (EN ISO 2811-1), Component B: 1.02 g/cm^3 (EN ISO 2811-1)
Viscosity	Component A (ISO): 1200–1800 mPas (RVT ISO 2555 A2/50/23°C) Component B (resin): 400–600 mPas (RVT ISO 2555 A2/50/23°C)
Mixing ratio (by volume)	100/100
Gel time (23°C, 60% R.H.)	approx. 30-40 sec
Tack free time (23°C, 60% R.H.)	approx. 60 min
Intercoat interval	min: 2 hours at 23 °C i 60% R.H. max: 24 hours at 23 °C i 60% R.H.
Application temperature	+5°C do +40°C
Substrate temperature	+5°C do +50°C
Relative air humidity	<75%
Gloss (60°C)	75-80
Chemical resistance	A reference list is available upon request - please contact us.
Available shades	White and gray; other shades on request.

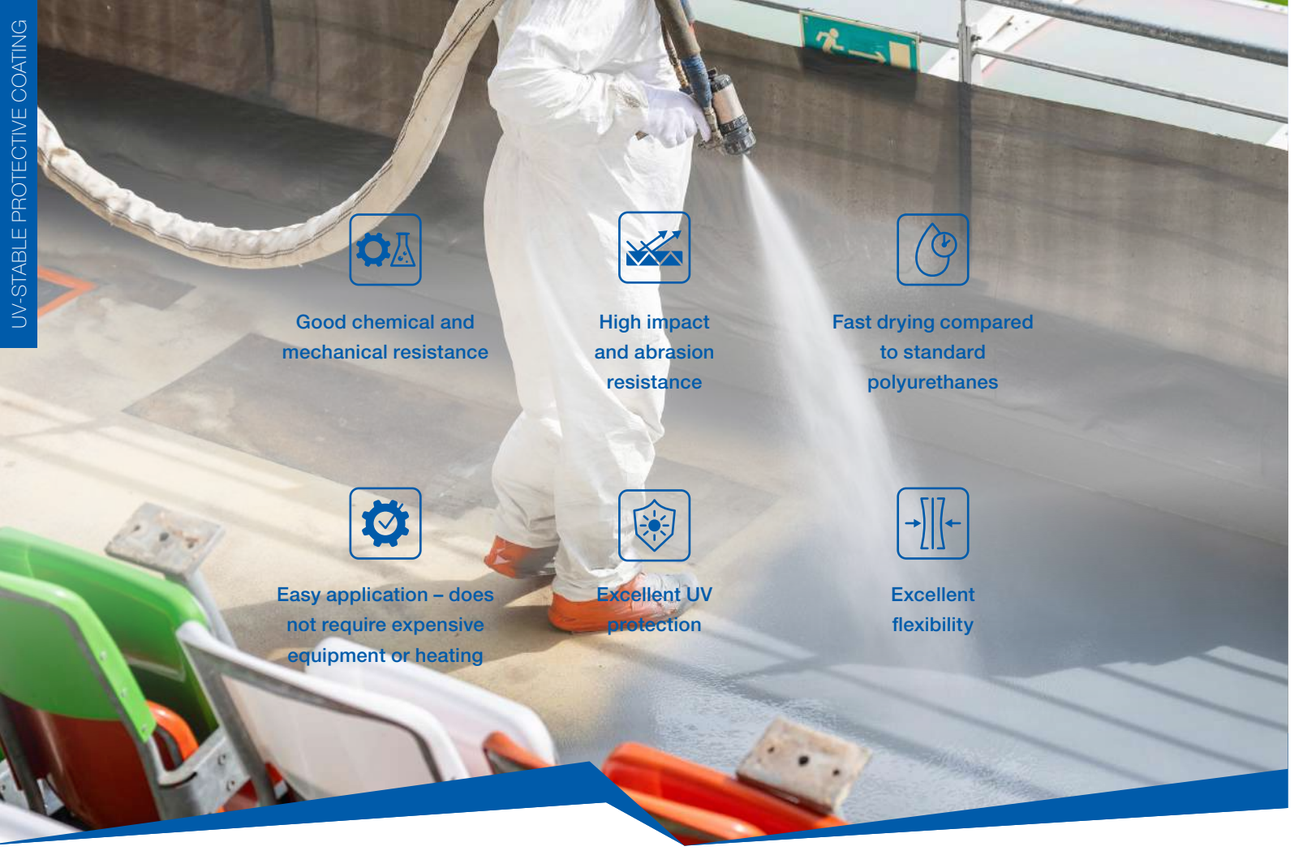
MECHANICAL PROPERTIES OF THE CURED COATING	
Hardness (Shore D)	25 (EN ISO 868)
Elongation at break	min 400 % (EN ISO 37)
Tensile strength	min 15.0 N/mm^2 (EN ISO 37)
Tear resistance	min 31 N/mm (EN ISO 34-1)

CHARACTERISTICS ACCORDING TO EN 1504-2

PROPERTIES	Test method	Product performance	According to EN 1504-2
Abrasion resistance	EN ISO 5470-1	<179.5 mg	Weight loss < 3000 mg (H22/1000g/1000c)
Permeability to CO_2	EN 1062-6	s_d = 135 m (medium value)	$s_d \geq 50$ m
Permeability to water vapor	EN ISO 7783	Class I s_d = 2.82 m (medium value)	Class I sd < 5 m Class II 5 m ≤ sd ≤ 50 m Class III sd > 50 m
Capillary absorption and permeability to water	EN 1062-3	w = 0.0 kg/m^2 x h$^{-0,5}$ (medium value)	w<0.1 kg/m^2 x h$^{-0,5}$
Resistance to severe chemical attack CH_3OH, (60% toluene, 30% xylene, 10%*methylnaphthalene H_2SO_4(20%), KOH(20%), NaCl(20%), CH_3COOH(10%)	EN 13529	Shore A <50% Class I Class II Class II	Shore A (reduction in hardness) <50%, 24h after removing the coating from the test liquid) Class I: 3 days without pressure Class II: 28 days without pressure Class III: 28 days with pressure
Impact resistance	EN ISO 6272-1	Class III 22 Nm (medium value)	After loading no cracks and delamination Class I: ≥ 4 Nm Class II: ≥ 10 Nm Class III: ≥ 20 Nm
Crack-bridging ability	EN 1062-7	Class A5 (23°C)	Class A5 > 2,5 mm
Adhesion strenght by pull-off test	EN 1542	1.5 N/mm^2 (medium value)	≥1.0 N/mm^2
Reaction to fire	EN 13501-5	Broof (t1) E	EuroClass

UV-STABLE PROTECTIVE COATING (COLD POLYUREA)

IN INDUSTRIAL COATINGS CONTEXT, THIS REFERS TO A POLYUREA-BASED PROTECTIVE COAT THAT IS APPLIED WITHOUT HEAT (COLD APPLICATION) AND IS FORMULATED TO RESIST DEGRADATION FROM UV EXPOSURE, ENSURING LONG-TERM DURABILITY AND COLOR STABILITY OUTDOORS.



PAS TOP COAT 450

PAS TOP COAT 450 is a two-component protective coating that is mixed and applied at room temperature using a brush, roller, or spray.

Polyurea Standard and Polyurea Flex gradually yellow when exposed to UV rays. For projects where visual consistency is critical, a final layer of cold-applied polyurea – PAS TOP COAT 450 – is recommended, as it ensures long-term UV stability and color retention.

APPLICATION

- Industrial floors
- Waterproofing of flat roofs, terraces, and balconies
- As a topcoat for exposed epoxy floors
- Repairs of damaged surfaces coated with hot-applied polyurea
- As a finishing layer for exposed polyurea and PU roof waterproofing systems

GENERAL REQUIREMENTS

- Moisture Protection: Polyaspartics must be protected from moisture for 4–6 hours after application. Moisture can cause whitening and/or make the surface sticky, and may interfere with curing. Any whitened or tacky areas can be removed by sanding, followed by applying a new coat.
- Intercoat Interval: If the waiting time between two coats exceeds the specified limit, or when refurbishing old floors, the surface must be thoroughly cleaned and primed before applying a new coat. The maximum intercoat interval is 48 hours.
- Application Temperature: During application and curing, the temperature must be between +8°C and +35°C.
- Moisture Limits: Substrate moisture must not exceed 4%, and ambient humidity should be below 65%
- Polyaspartic workability depends on temperature. The ideal application temperature is +15°C to +25°C, ensuring optimal handling and curing time. Temperatures below +15°C will extend curing time. Temperatures above +30°C will shorten curing time. Recommendation: Warm the product in winter and store it in a cool room before summer application.
- Bonding between coats can be seriously compromised by moisture or contaminants between layers.
- PAS TOP-COAT 450 is intended for professional use only.

UV-STABLE PROTECTIVE COATING

TECHNICAL DATA	
Spreading rate	250–450 g/m^2 per coat, depending on the substrate.
Packaging	Component A – Tin plate container, 16 kg, 4.5 kg Component B – Tin plate container, 9 kg, 2.5 kg
Storage	In dry and well ventilated space at temperatures from +5 °C to +30 °C. Protect from direct sunlight.
Shelf life	12 months

PHYSICAL AND CHEMICAL PROPERTIES	
Mass density (mixture)	1.4 g/cm^3 (EN ISO 2811-1)
Viscosity (mixture)	1900 – 2100 mPas (RVT ISO 2555 A3/50/23°C)
Permeability to water vapor	Class II (EN ISO 7783)
Capillary absorption and permeability to water	w = 0.0 kg/m^2 x h$^{-0,5}$ (medium value; EN 1062-3)
Mixing ratio	64:36 (by weight)
Pot life (23°C, 60% R.H.)	approx. 25 minutes
Curing Time (at 23°C, 60% R.H.)	Tack free time: approx. 5 h Light traffic: approx. 10 h Full cure: approx. 5 days
Intercoat interval	min: 5 hours na 23 °C and 60% R.H. max: 2 days na 23 °C and 60% R.H.
Application temperature	+15°C do +25°C
Relative air humidity	<65%
Chemical resistance	A reference list is available upon request - please contact us.
Available shades	Available shades according to the RAL color chart.

MECHANICAL PROPERTIES OF THE CURED COATING	
Hardness (Shore D)	60 (EN ISO 868)
Elongation at break	min 100 % (EN ISO 37)
Tensile strength	min 13,0 N/mm^2 (EN ISO 37)
Tear resistance	min 17 N/mm (EN ISO 34-1)
Abrasion resistance	Weight loss < 20 mg (Taber H17, 1000 g; 1000 c; EN ISO 5470-1)
Impact resistance	Class I (EN ISO 6272-1)
Adhesion strenght by pull-off test	4.5 N/mm^2 (medium value; EN 1542)

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