SAKAPHEN®

Your perfect partner for corrosion protection

COLD-CURED COATINGS

INTRO

SÄKAPHEN® sets standards in the field of corrosion protection. The SÄKAPHEN® coating technology stands for protection of equipment and security for processes and enterprises. During more than 60 years, coating materials and process technologies have been developed, complying with all requirements of reliable corrosion protection. They prevent dangerous incrustation and fouling in tube bundle heat exchangers and other types of coolers and have earned the brand name SÄKAPHEN® a worldwide reputation. Furthermore, SÄKAPHEN® also protects other equipment such as ISO tank containers, process vessels, silos, turbines and vents, pipes, ship coolers and many more.

SÄKAPHEN® coating materials are manufactured as heat-cured thermosetting plastics and cold-cured resin combinations according to own recipes. They are applied in multiple layers in special process technologies either by methods of flooding or spraying.

This brochure focuses on two or more component catalytically hardening coatings, also called cold-cured coatings, which are applied in a multilayer process by spraying, rolling or trowelling. Hardening is achieved by chemical reactions of the components. These types of coating are applied worldwide in SÄKAPHEN®'s own plant as well as in Authorized Applicators' plants and on sites by trained applicators.

Your perfect partner for corrosion protection

SÄKAPHEN®

Your perfect partner for corrosion protection

Content

LABORATORY

In its own laboratory, SÄKAPHEN® conducts on-going resistance tests to further develop the best possible coating systems. These products are used for individually tailored coating solutions to meet our customer needs and requirements.

The SÄKAPHEN® business goal is the lasting quality of the coating materials and their continuous development and refinement.

Important pillar of SÄKAPHEN®'s corporate structure is research and development in its business area and professional adaptation of the products to technical and legal requirements.

AUTHORIZED APPLICATORS

SÄKAPHEN® cooperates with powerful partners, offering expert advice, service and reliability when it comes to optimum corrosion protection.

Below you can find global Authorized Applicators for our coating systems, in particular the heat cured coatings.

Norway	*Saudi Arabia*	*China*	*USA*
Germany	*Oman*	*India*	
Austria	*Pakistan*	*Malaysia*	
Great Britain		*South Korea*	
Italy			
Spain			

Contact details of our Authorized Applicators can be found under www.saekaphen.de.

At this point in the brochure, you will find a brief presentation of the entire process of planning and realizing high-quality corrosion protection from analysing the conditions over preparing the quoation to applying the coating and subsequent maintenance. The description will continue over the next pages.

HR 60 E

HR 60® Extra G Green

The images are for illustration purposes only and may differ from the actual appearance of the product.

TWO-COMPONENT, EPOXY-BASED HYDROPHOBIC COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA. GREEN, HIGH GLOSS.

SÄKAPHEN® HR 60® Extra G Green is a superior **hydrophobic** two-component **epoxy**-based thermosetting coating.

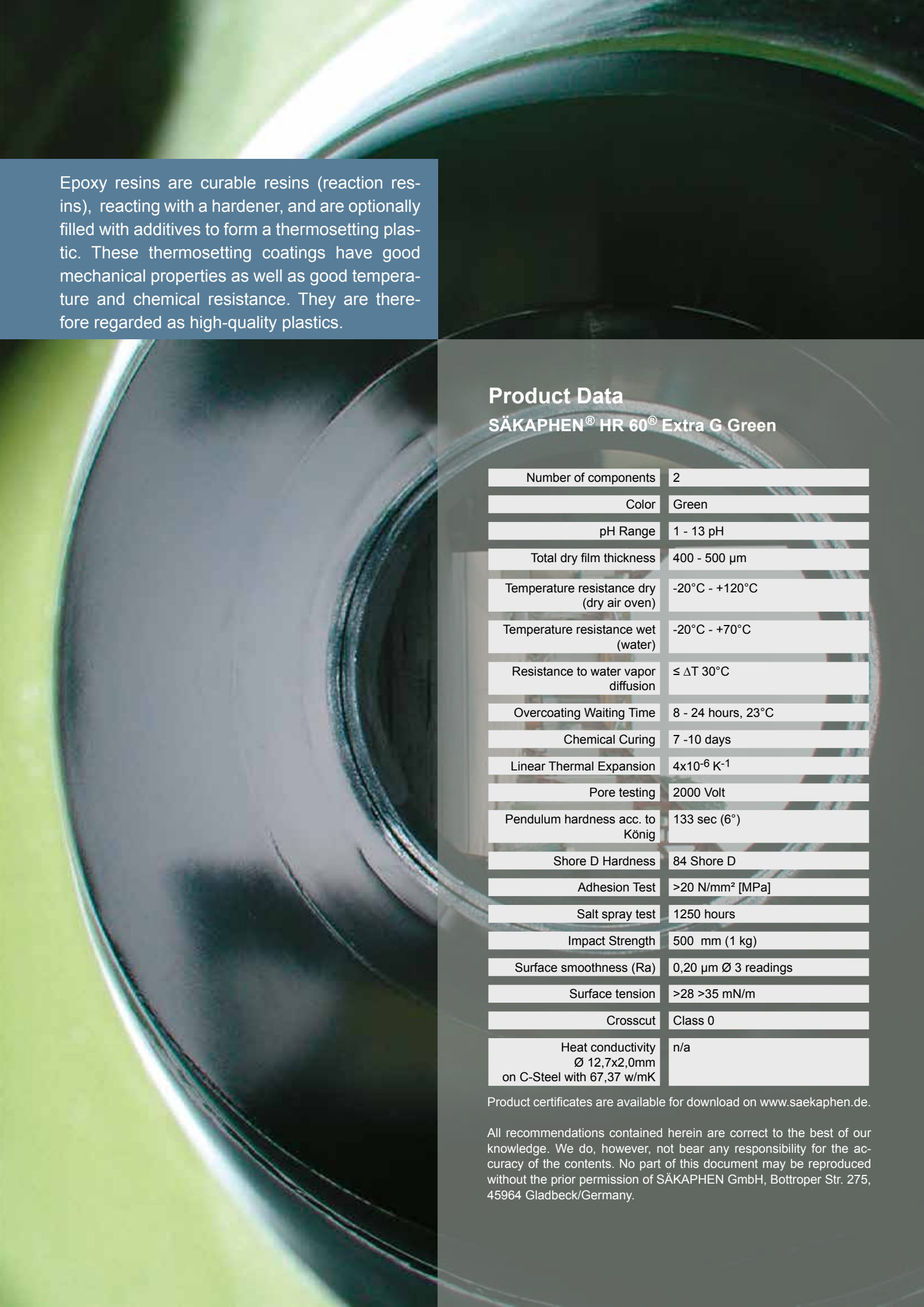
The coating is chemically resistant to all types of water, including brackish, river and sea water as well as deionized water, various substances ranging from **acidic** to **strongly alkaline**, inorganic salts and their solutions, **fuels** and **acidic aqueous** solutions.

The surface is hard elastic with hydrophobic properties and prevents caking, fouling and incrustation.

The coating can be applied on-site. Weather-resistant.

Fields of application: For the coating of blowers, fans and compressors, the corresponding houses, tanks and vessels, piping, spools and prover loops, for the application in water treatment and desalination.

An epoxy coating that can take all kinds of demands - because your plant deserves it.



Epoxy resins are curable resins (reaction resins), reacting with a hardener, and are optionally filled with additives to form a thermosetting plastic. These thermosetting coatings have good mechanical properties as well as good temperature and chemical resistance. They are therefore regarded as high-quality plastics.

Product Data

SÄKAPHEN® HR 60® Extra G Green

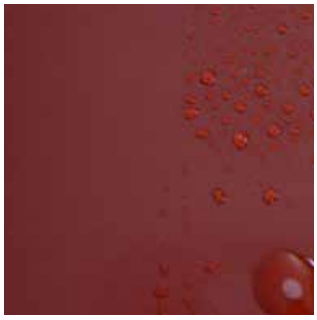
Number of components	2
Color	Green
pH Range	1 - 13 pH
Total dry film thickness	400 - 500 µm
Temperature resistance dry (dry air oven)	-20°C - +120°C
Temperature resistance wet (water)	-20°C - +70°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 24 hours, 23°C
Chemical Curing	7 -10 days
Linear Thermal Expansion	$4x10^{-6}$ K^{-1}
Pore testing	2000 Volt
Pendulum hardness acc. to König	133 sec (6°)
Shore D Hardness	84 Shore D
Adhesion Test	>20 N/mm² [MPa]
Salt spray test	1250 hours
Impact Strength	500 mm (1 kg)
Surface smoothness (Ra)	0,20 µm Ø 3 readings
Surface tension	>28 >35 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

SÄKAPHEN® will always offer a tailor-made, individual solution from its extensive range of products, thanks to the detailed recording of all relevant criteria, in particular the general chemical/thermal load, the mechanical requirements, the local conditions, etc.

HR 60 E

HR 60® E Extra G Red



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TWO-COMPONENT, EPOXY-BASED HYDROPHOBIC COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA. RED, HIGH GLOSS.

SÄKAPHEN® HR 60® Extra G Rot is a superior **hydrophobic** two-component **epoxy**-based thermosetting coating.

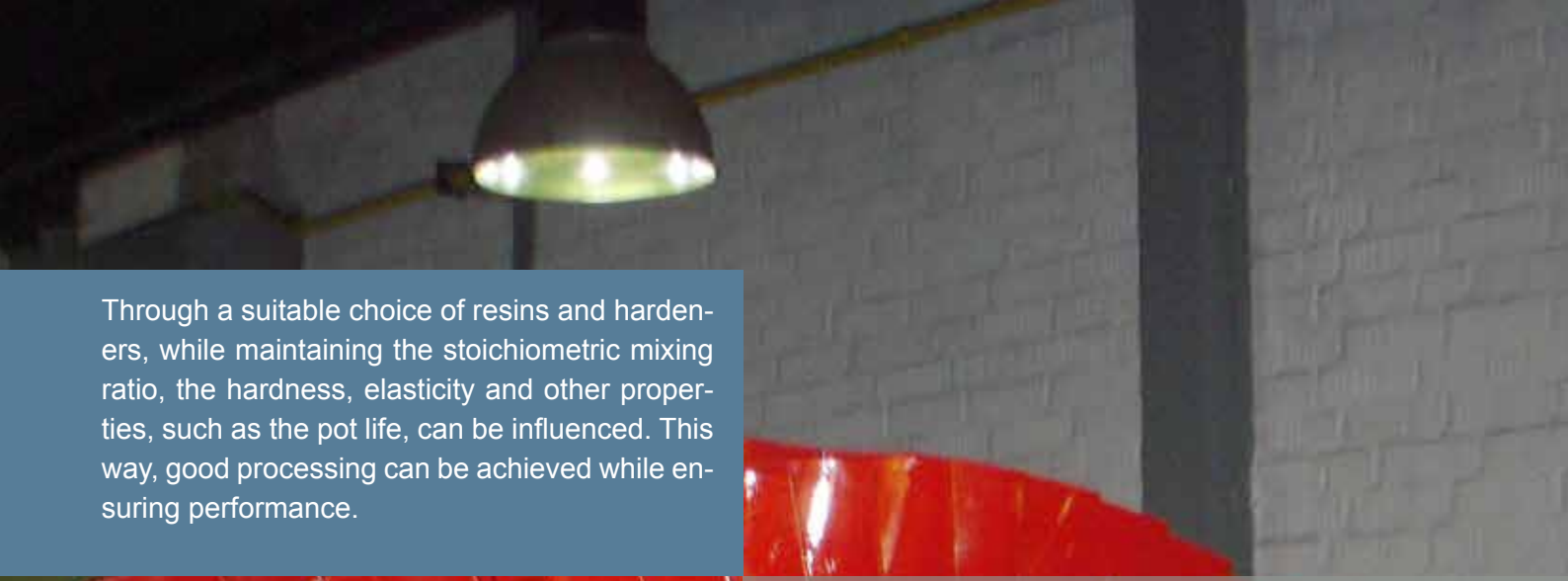
The coating is chemically resistant to all types of water, including brackish, river and sea water as well as deionized water, various substances ranging from **acidic** to **strongly alkaline**, inorganic salts and their solutions, **fuels** and **acidic aqueous** solutions and **concentrated hydrochloric acid**.

The surface is hard elastic with hydrophobic properties and prevents caking, fouling and incrustation.

The coating can be applied on-site. Weather-resistant.

Fields of application: For the coating of blowers, fans and compressors, the corresponding houses, tanks and vessels, piping, spools and prover loops, for the application in water treatment and desalination.

Solvent-free epoxy coating with hydrophobic surface and desert tested UV resistance.



Through a suitable choice of resins and hardeners, while maintaining the stoichiometric mixing ratio, the hardness, elasticity and other properties, such as the pot life, can be influenced. This way, good processing can be achieved while ensuring performance.

Product Data

SÄKAPHEN® HR 60® Extra G Red

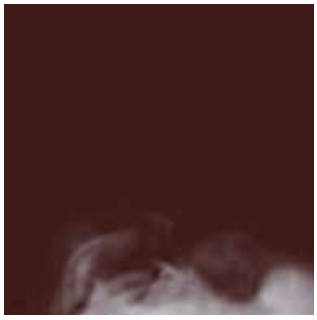
Number of components	2
Color	Red
pH Range	1 - 13 pH
Total dry film thickness	400 - 500 µm
Temperature resistance dry (dry air oven)	-20°C - +120°C
Temperature resistance wet (water)	-20°C - +70°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 24 hours, 23°C
Chemical Curing	7 -10 days
Linear Thermal Expansion	n/a
Pore testing	2000 Volt
Pendulum hardness acc. to König	133 sec (6°)
Shore D Hardness	84 Shore D
Adhesion Test	>20 N/mm² [MPa]
Salt spray test	1250 hours
Impact Strength	550 mm (1 kg)
Surface smoothness (Ra)	0,40 µm Ø 3 readings
Surface tension	>28 >35 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

In a technical questionnaire, the aforementioned criteria are recorded and then evaluated by the application engineering. This selection process is backed by laboratory tests, years of practical testing and experienced staff who see corrosion protection as an engineering task.

HR 60 E

HR 60® Extra TG



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TWO-COMPONENT, EPOXY-BASED WATER-VAPOR-RESISTANT COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA. DARK BROWN, MATT.

SÄKAPHEN® HR 60® Extra TG is a high quality two-component **epoxy**-based thermosetting coating, resistant to **water vapor diffusion (≤ ΔT 85°C)**.

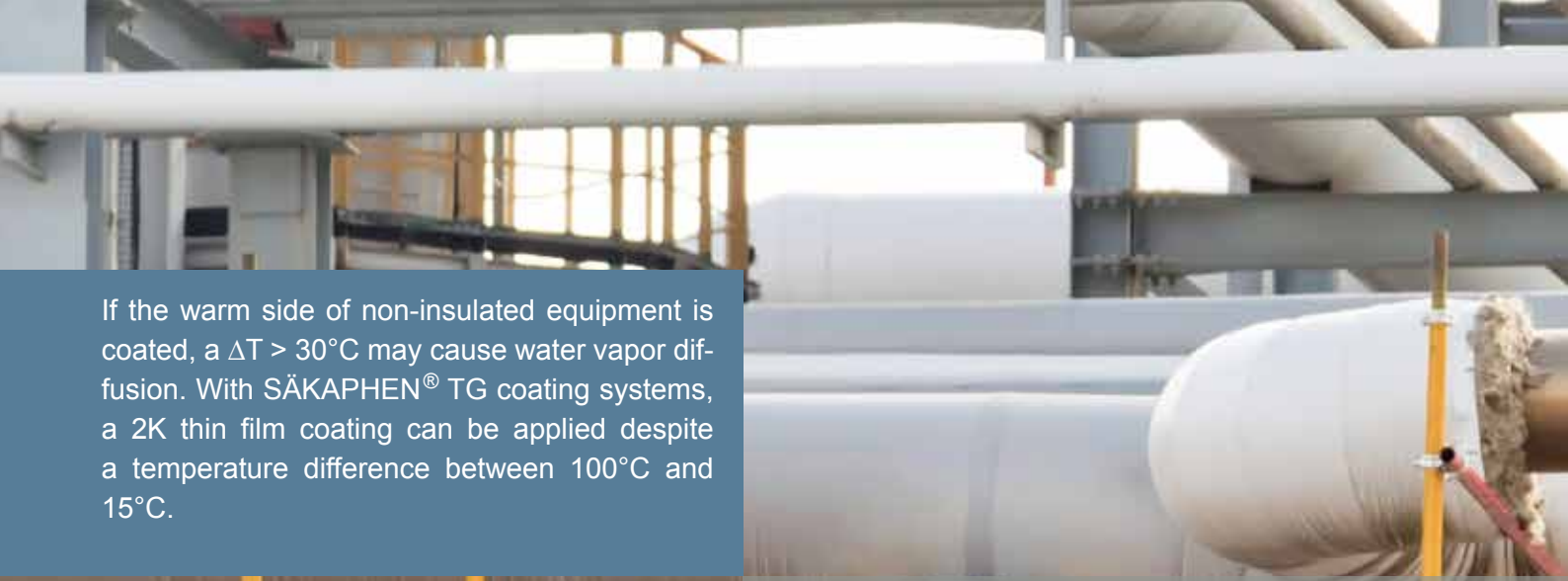
The coating is chemically resistant to all types of water, including brackish, river and sea water **up to 100°C** in **permanent immersion**, various substances ranging from **acidic** to **strongly alkaline**, inorganic salts and their solutions as well as **acidic aqueous** solutions.

The surface is hard elastic.

The coating can be applied on-site.

Fields of application: For the coating of water chambers, blowers, fans, and compressor housings, tanks without insulation, condensate reservoirs, desalination and water treatment plants and pipelines, for equipment where a coating resistant to water vapor diffusion is needed.

Easy to apply 2-pack epoxy coating for reliable performance.



If the warm side of non-insulated equipment is coated, a ΔT > 30°C may cause water vapor diffusion. With SÄKAPHEN® TG coating systems, a 2K thin film coating can be applied despite a temperature difference between 100°C and 15°C.

Product Data

SÄKAPHEN® HR 60® Extra TG

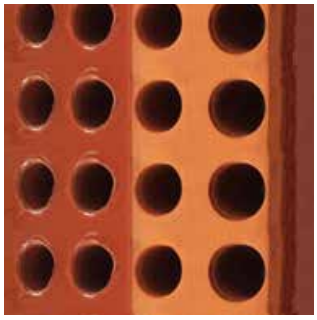
Number of components	2
Color	Dark brown
pH Range	4 - 12 pH
Total dry film thickness	300 - 350 µm
Temperature resistance dry (dry air oven)	-20°C - +120°C
Temperature resistance wet (water)	-20°C - +105°C
Resistance to water vapor diffusion	≤ ΔT 85°C
Overcoating Waiting Time	12 - 48 hours, 23°C
Chemical Curing	8 days
Linear Thermal Expansion	n/a
Pore testing	67,5 Volt
Pendulum hardness acc. to König	63 sec (6°)
Shore D Hardness	84 Shore D
Adhesion Test	>8 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	1000 mm (1 kg)
Surface smoothness (Ra)	2,18 µm Ø 3 readings
Surface tension	>35 >38 mN/m
Crosscut	Class 1
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

With the material recommendation, the sales department will write a quotation that allows the customer to assess the investment for proper corrosion protection of his equipment with a SÄKAPHEN® coating in addition to the comparison with other suppliers.

K80LS

SÄKATONIT® K80LS



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TWO-COMPONENT, EPOXY-BASED HYDROPHOBIC TROWELLING SYSTEM FOR ACIDIC TO STRONGLY ALKALINE MEDIA. RED, MATT (SPATULA) OR GLOSS (PRIMER/TOPCOAT).

SÄKAPHEN® SÄKATONIT® K80LS is a high quality **hydrophobic epoxy**-based two-component **trowelling system for tube sheet coating**.

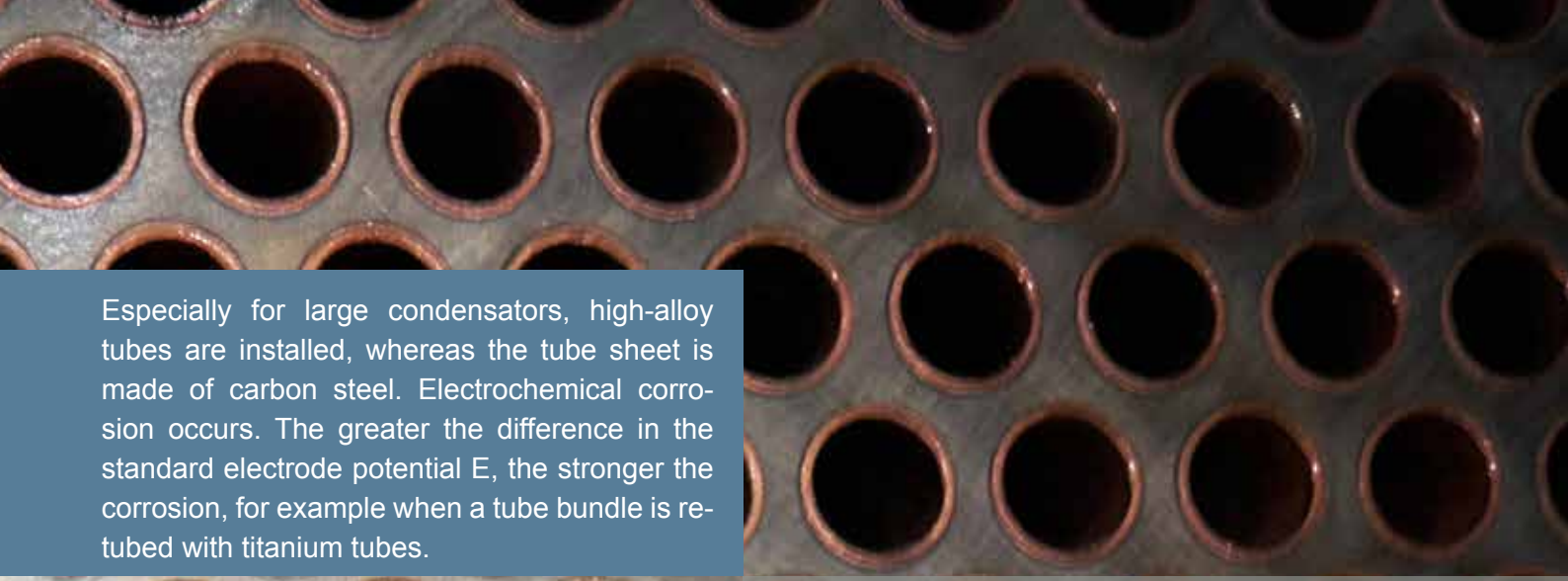
The coating system is resistant to all types of water, including brackish, river and sea water as well as deionized water, various substances ranging from **acidic** to **strongly alkaline**, inorganic salts and their solutions. The included suspending agent enables individual adjustment of the viscosity to the application.

The surface is hard elastic with hydrophobic properties and prevents caking, fouling and incrustation.

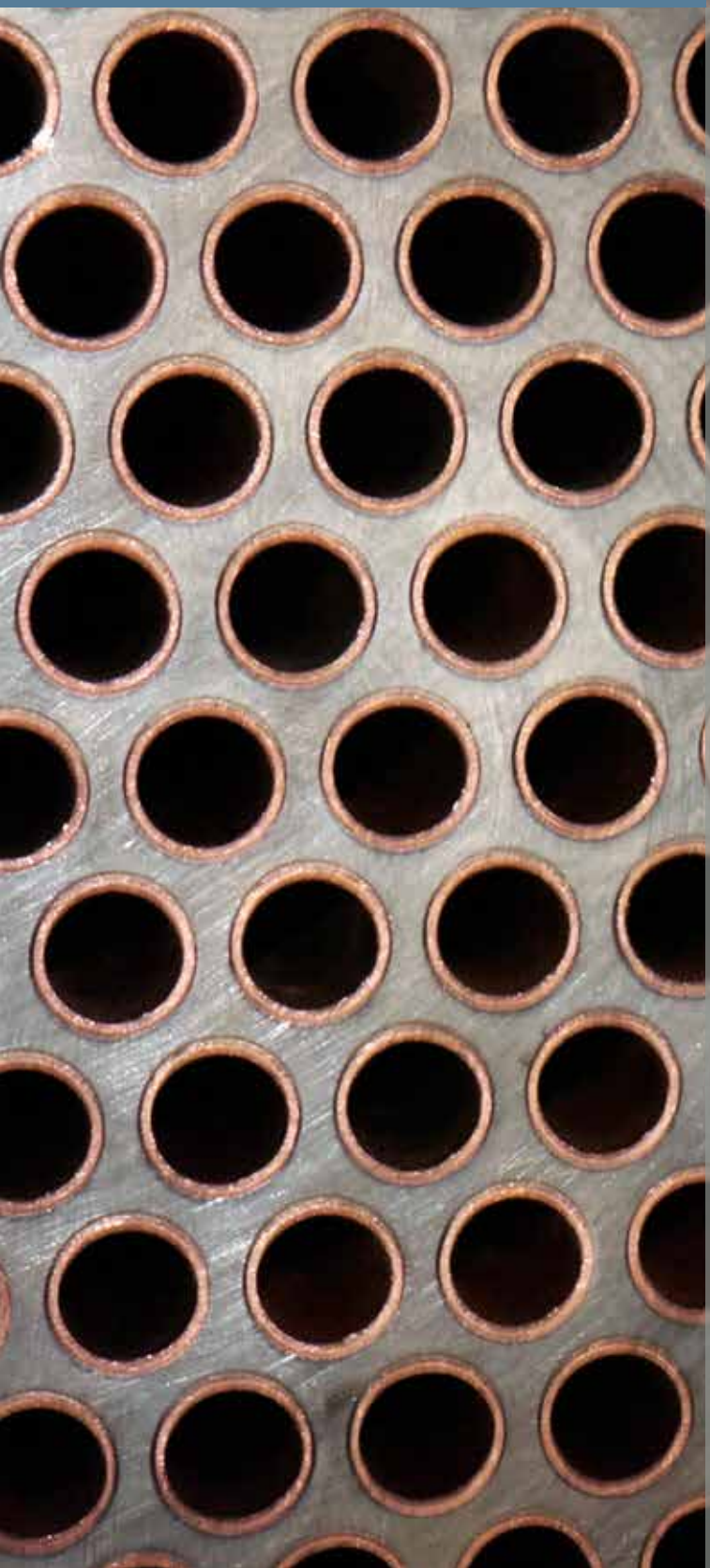
The coating can be applied on-site.

Fields of application: For the coating of tube sheets in power plants, in water treatment and desalination plants and in the chemical industry.

Ideal corrosion protection coating for priming, trowelling, top coat.



Especially for large condensators, high-alloy tubes are installed, whereas the tube sheet is made of carbon steel. Electrochemical corrosion occurs. The greater the difference in the standard electrode potential E, the stronger the corrosion, for example when a tube bundle is retubed with titanium tubes.



Product Data

SÄKAPHEN® SÄKATONIT® K80LS

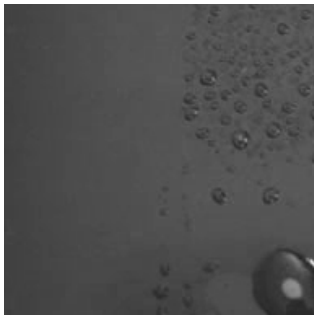
Number of components	2
Color	Red
pH Range	1 - 13 pH
Total dry film thickness	To the length of the jet out tubes
Temperature resistance dry (dry air oven)	-20°C - +90°C
Temperature resistance wet (water)	-20°C - +70°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 24 hours, 23°C
Chemical Curing	7 - 10 days
Linear Thermal Expansion	n/a
Pore testing	n/a
Pendulum hardness acc. to König	147 sec (6°)
Shore D Hardness	83 Shore D
Adhesion Test	13 N/mm² [MPa] (troweling) 17 N/mm² [MPa] (primer, topcoat)
Salt spray test	n/a
Impact Strength	1000 mm (1 kg)
Surface smoothness (Ra)	0,195 µm Ø 3 readings
Surface tension	>28 mN/m
Crosscut	n/a

Product certificates are available for download on www.saekaphen.de.

SÄKAPHEN® will always offer a system solution that is understood as a synthesis of technical requirements and economic conditions. The extensive SÄKAPHEN® product range can be taken from this brochure.

Extra AR

SÄKATONIT® Extra AR



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TWO-COMPONENT, IMPACT RESISIANT EPOXY-BASED HYDROPHOBIC COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA. ANTHRACITE, HIGH GLOSS.

SÄKAPHEN® SÄKATONIT® Extra AR is a superior **hydrophobic mechanically durable** two-component **epoxy**-based coating.

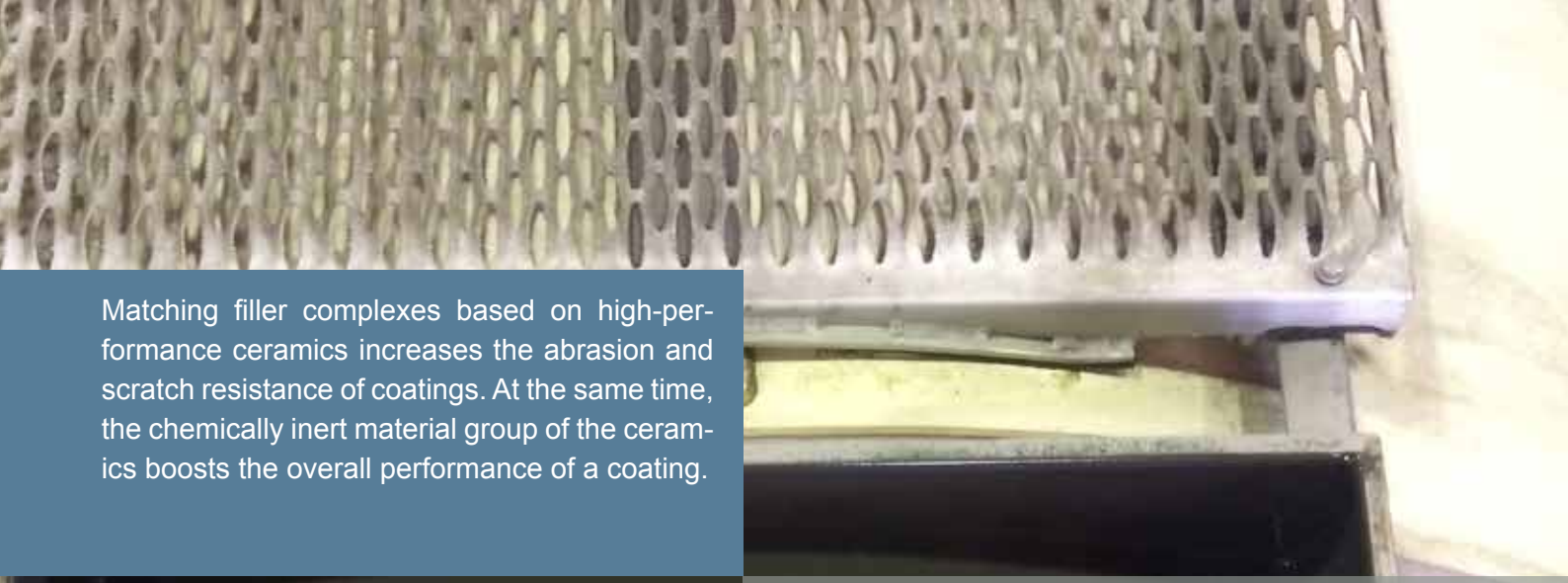
The coating is chemically resistant to all types of water, including brackish, river and sea water as well as deionized water, various substances ranging from **acidic** to **strongly alkaline**, inorganic salts and their solutions, **fuels**, **acidic aqueous** solutions and **concentrated hydrochloric acid**.

The surface is hard elastic, **abrasion** and **impact**-**resistant** with hydrophobic properties and prevents caking, fouling and incrustation.

The coating can be applied on-site. Weather-resistant.

Fields of application: For the coating of tube sheets, pipe work and prover loops, spill boxes, water boxes, blower-, fan- and compressor-housings, tanks, vessels, inside of filters, valves and agitators. Certain surface imperfections can be covered up by thickness of applied material.

SÄKAPHEN® is solving tomorrow's problems today.



Matching filler complexes based on high-performance ceramics increases the abrasion and scratch resistance of coatings. At the same time, the chemically inert material group of the ceramics boosts the overall performance of a coating.

Product Data

SÄKAPHEN® SÄKATONIT® Extra AR

Number of components	2
Color	Anthracite
pH Range	1 - 13 pH
Total dry film thickness	500 µm (chemical resistance) 1500 µm (mechanical resistance)
Temperature resistance dry (dry air oven)	-20°C - +120°C
Temperature resistance wet (water)	-20°C - +70°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 24 hours, 23°C
Chemical Curing	7 - 10 days
Linear Thermal Expansion	n/a
Pore testing	5000 Volt
Pendulum hardness acc. to König	132 sec (6°)
Shore D Hardness	83 Shore D
Adhesion Test	>20 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	1000 mm (1 kg)
Surface smoothness (Ra)	0,72 µm Ø 3 readings
Surface tension	>28 >35 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

Special material combinations enable SÄKAPHEN® to rehabilitate already heavily corroded surfaces that are no longer in accordance with coating standards, and thus offer a particularly economical alternative to a replacement by a new build.

AR-F

SÄKATONIT® Extra AR-F

The images are for illustration purposes only and may differ from the actual appearance of the product.

TWO-COMPONENT, HYDROPHOBIC AND FLOODABLE EPOXY-BASED COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA. GRAY, HIGH GLOSS. SUITABLE FOR BOX COOLERS.

SÄKAPHEN® SÄKATONIT® Extra AR-F is a superior **hydrophobic**, **solvent-free, floodable,** two-component **epoxy hybrid** -based coating.

The coating is chemically resistant to all types of water, including brackish, river and sea water as well as deionized water, **aqueous acidic** and **alkaline solutions** and cleaners incl. **RYDLYME®** Marine.

The surface is hard elastic, **abrasion-resistant** with hydrophobic properties and reduces caking, incrustation and fouling.

The coating can be applied on-site, especially for box coolers.

Fields of application: For the coating of different coolers, in particular box coolers **to protect against galvanic corrosion**, on site in the shipyard. The coating cures at ambient temperature. **No oven is required, and the coolers do not need to be shipped.** The system enables fast processing times, especially during recoating.

SÄKAPHEN® has innovative ideas for their customers, for where it is needed - on site!

SÄKAPHEN®'s service is applicable for various coolers in gas tankers, cruise ships, trawlers, bulk carriers, tankers and container ships as well as for special service ships such as ice-breakers, offshore supply vessels and offshore structures themselves.

Product Data

SÄKAPHEN® SÄKATONIT® Extra AR-F

Number of components	2
Color	Anthracite
pH Range	1 - 13 pH
Total dry film thickness	100 µm - 200 µm
Temperature resistance dry (dry air oven)	-20°C - +120°C
Temperature resistance wet (water)	-20°C - +70°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 24 hours, 23°C
Chemical Curing	7 - 10 days
Linear Thermal Expansion	n/a
Pore testing	67,5 Volt
Pendulum hardness acc. to König	132 sec (6°)
Shore D Hardness	83 Shore D
Adhesion Test	>20 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	1000 mm (1 kg)
Surface smoothness (Ra)	0,72 µm Ø 3 readings
Surface tension	>28 >35 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

200

The qualified customer consultants for SÄKAPHEN® coating materials carry out on-site assessments as well as remote diagnostics by means of pictures, drawings and descriptions. During the execution of the coating job, the work is documented according to the current SÄKAPHEN® quality guidelines. The quality guidelines are based on relevant DIN, ASTM and NACE standards. This ensures a consistent quality.

SÄKALINE 200

The images are for illustration purposes only and may differ from the actual appearance of the product.

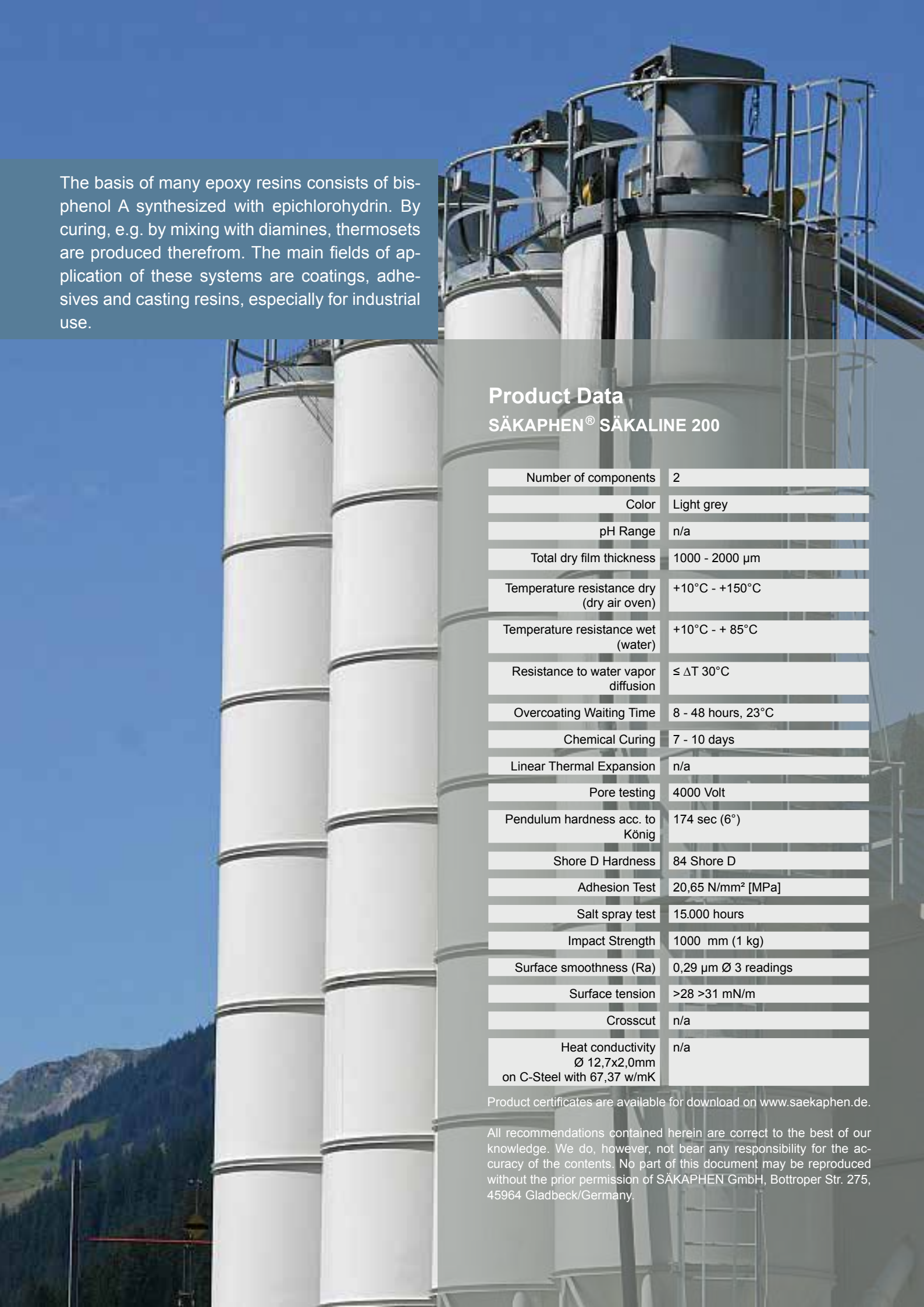
TWO-COMPONENT, EPOXY-BASED ABRASION-RESISTANT COATING FOR ACIDIC TO STRONGLY ALKALINE MEDIA WITH CERAMIC FILLING. LIGHT GREY, MATT.

SÄKAPHEN® SÄKALINE 200 is a high-quality **hydrophobic** two-component **abrasion-resistant epoxy**-based coating, resistant to various substances ranging from slightly **sour** to **alkaline** including all types of water, including brackish, river and sea water as well as deionized water with **ceramic fillers**.

The coating can be applied on-site.

Fields of application: For the coating of boilers and other hot water tanks, industrial water and sewage gas containers in the paper and pulp industry.

Protection for steel and concrete.



The basis of many epoxy resins consists of bisphenol A synthesized with epichlorohydrin. By curing, e.g. by mixing with diamines, thermosets are produced therefrom. The main fields of application of these systems are coatings, adhesives and casting resins, especially for industrial use.

Product Data

SÄKAPHEN® SÄKALINE 200

Number of components	2
Color	Light grey
pH Range	n/a
Total dry film thickness	1000 - 2000 µm
Temperature resistance dry (dry air oven)	+10°C - +150°C
Temperature resistance wet (water)	+10°C - + 85°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	8 - 48 hours, 23°C
Chemical Curing	7 - 10 days
Linear Thermal Expansion	n/a
Pore testing	4000 Volt
Pendulum hardness acc. to König	174 sec (6°)
Shore D Hardness	84 Shore D
Adhesion Test	20,65 N/mm² [MPa]
Salt spray test	15.000 hours
Impact Strength	1000 mm (1 kg)
Surface smoothness (Ra)	0,29 µm Ø 3 readings
Surface tension	>28 >31 mN/m
Crosscut	n/a
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

Together with the coated workpiece, the customer will receive a test certificate, certifying the quality of the applied coating and at the same time ensuring the functionality of the coating.

KTW

SÄKALINE KTW

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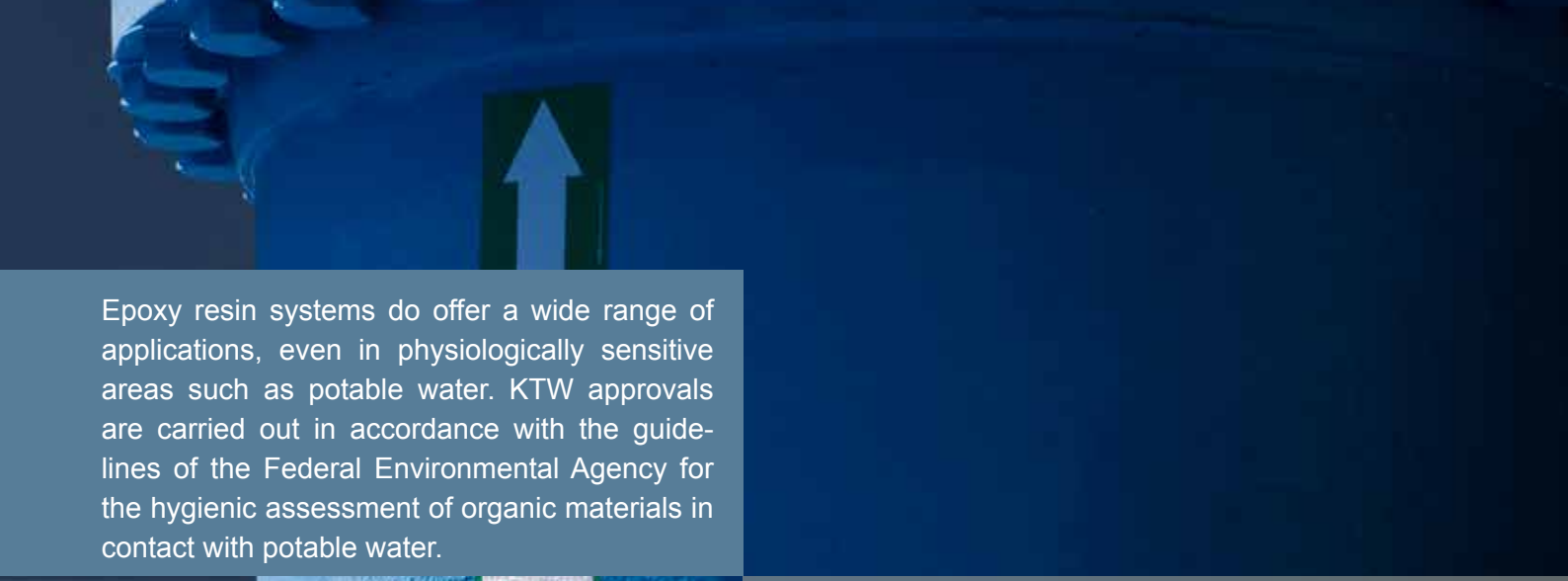
TWO-COMPONENT, EPOXY-BASED COATING. POTABLE WATER APPROVED. BLACK, SATIN FINISH.

SÄKAPHEN® SÄKALINE KTW is a high-quality **hydrophobic** two-component **epoxy-**based coating, resistant to various substances ranging from **weakly acidic** to **alkaline** including all types of water, including brackish, river and sea water as well as deionized water with **nano particle filling**.

The coating has a potable water approval (*KTW Zulassung*) **for warm water (60°C). KTW stands for plastics in contact with potable water.**

Field of application: For the coating of potable water tanks, pipe work, boilers and other warm (60°C) water tanks.

Coating for potable water - protection for the most valuable food source.



Epoxy resin systems do offer a wide range of applications, even in physiologically sensitive areas such as potable water. KTW approvals are carried out in accordance with the guidelines of the Federal Environmental Agency for the hygienic assessment of organic materials in contact with potable water.

Product Data

SÄKAPHEN® SÄKALINE KTW

Number of components	2
Color	Black
pH Range	3 - 12 pH
Total dry film thickness	400 - 1000 µm
Temperature resistance dry (dry air oven)	+10°C - +85°C
Temperature resistance wet (water)	+10°C - +60°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	min. 4 - 24 hours, 23°C
Chemical Curing	7 days
Linear Thermal Expansion	n/a
Pore testing	3200 Volt
Pendulum hardness acc. to König	118 sec (6°)
Shore D Hardness	83 Shore D
Adhesion Test	20 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	100 mm (1 kg)
Surface smoothness (Ra)	4,6 µm Ø 3 readings
Surface tension	~28 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

In addition to selecting suitable coating systems for heavy corrosion protection, the careful maintenance of the applied systems is of particular importance in order to achieve an optimal coating life span.

900 Whit

SÄKAFLAKE® 900 White 3K

The images are for illustration purposes only and may differ from the actual appearance of the product.

PLURAL COMPONENT, VINYL ESTER EPOXY NOVOLAC-BASED ABRASION-RESISTANT AND WATER VAPOR-RESISTANT GLASS FLAKE-FILLED COATING FOR STRONGLY ACIDIC TO STRONGLY ALKALINE MEDIA. WHITE, MATT.

SÄKAPHEN® SÄKAFLAKE® 900 White 3K is a plural component **vinyl ester epoxy novolac**-based **abrasion-resistant glass flake**-filled coating, resistant to **water vapor diffusion (≤ ΔT 85°C)**.

The coating is chemically resistant against **aggressive** substances such as **acids**, **bases**, salt solutions, **fluegas** and all types of water, including brackish, river and sea water as well as deionized water.

The coating can be applied on-site.

Fields of application: For the coating of chamber parts of heat exchangers, evaporators and air coolers, blowers, fans and compressor casings, flue gas funnels/channels, flue gas desulfurization equipment, wash towers, process and storage tanks, vessels and containers. For equipment requiring a coating resistant to water vapor diffusion also with high temperature gradients.

Long lasting 3-pack coating with temperature resistance up to 180°C.

Providing the accelerator as a separate component increases storage stability since a reaction between cobald amine accelerators and resin is prevented. Glass flakes of different sizes, matched to each other, increase the barrier effect and the performance of the coating.

Product Data

SÄKAPHEN® SÄKAFLAKE® 900 White 3K

Number of components	3
Color	White
pH Range	1 - 12 pH
Total dry film thickness	1500 µm
Temperature resistance dry (dry air oven)	-20°C - +180°C
Temperature resistance wet (water)	-20°C - +100°C
Resistance to water vapor diffusion	≤ ΔT 85°C
Overcoating Waiting Time	min. 12 hours, 23°C
Chemical Curing	8 days
Linear Thermal Expansion	n/a
Pore testing	5000 Volt
Pendulum hardness acc. to König	n/a
Shore D Hardness	85 Shore D
Adhesion Test	10 - 15 N/mm² [MPa]
Salt spray test	1250 hours
Impact Strength	1 Mon 450 / 6 mon 900 mm (1 kg)
Surface smoothness (Ra)	5,20 µm Ø 3 readings
Surface tension	> 38 < 41 mN/m
Crosscut	Class 2
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

If necessary, the actual condition of the coating is recorded in a report and handed over to the customer with a repair recommendation as well as a cost estimate. In this way, type and scope as well as the timely requirements of possible rehabilitation measures can be planned and assessed.

SÄKAFLAKE® 900 Black 3K

The images are for illustration purposes only and may differ from the actual appearance of the product.

PLURAL COMPONENT, VINYL ESTER NOVOLAC-BASED CONDUCTIVE ABRASION-RESISTANT AND WATER VAPOR-RESISTANT GLASS FLAKE-FILLED COATING FOR STRONGLY ACIDIC TO STRONGLY ALKALINE MEDIA. BLACK, MATT.

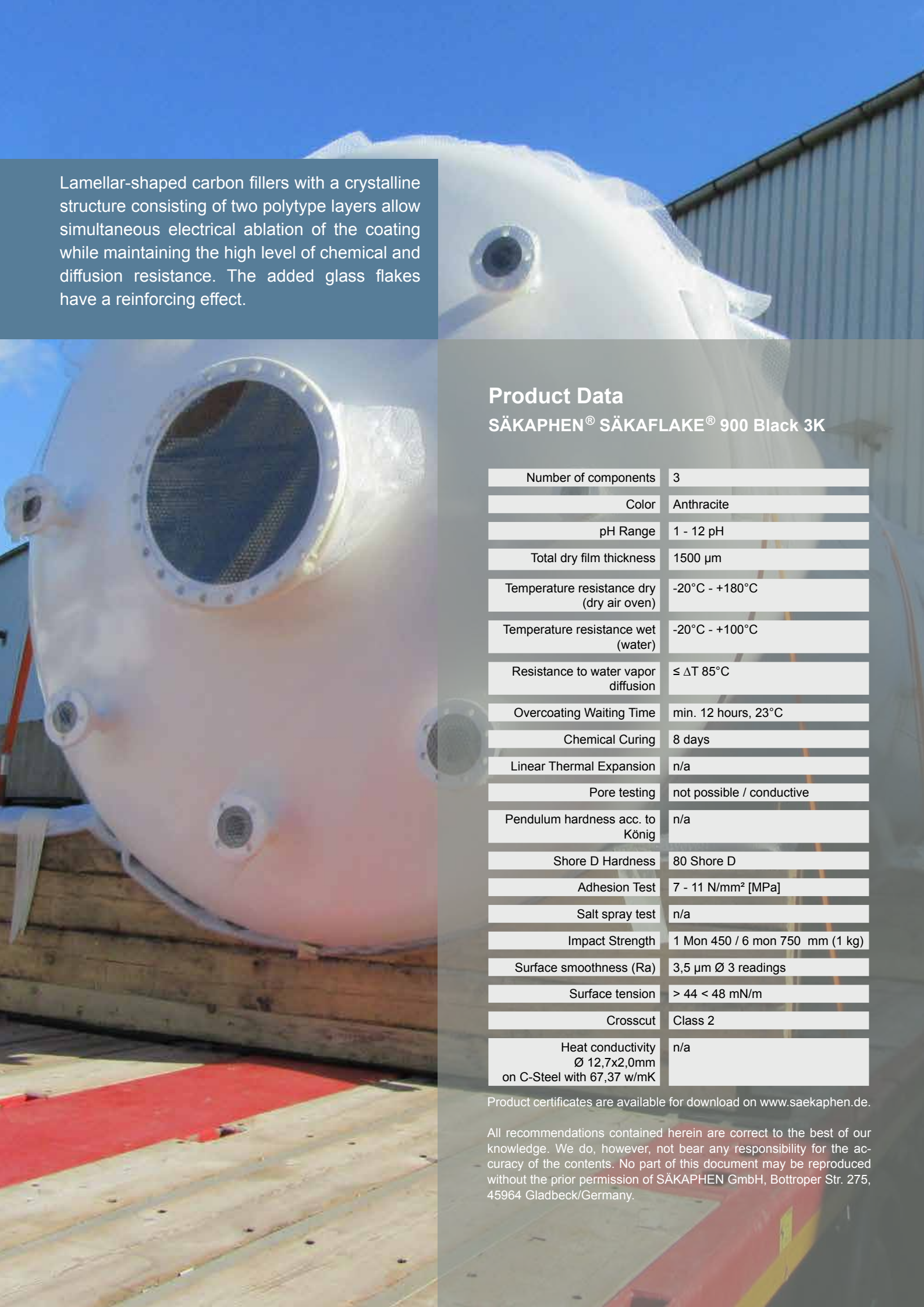
SÄKAPHEN® SÄKAFLAKE® 900 Black 3K is a plural component **vinyl ester epoxy novolac**-based **abrasion resitant electrically conductive glass and graphite flake-filled** coating, resistant to **water vapor diffusion (≤ ΔT 85°C)**.

The coating is chemically resistant against **aggressive** substances such as **acids**, **bases**, solvents, salt solutions, **fluegas** and all types of water, including brackish, river and sea water as well as deionized water. **The electrical volume is less than $10^7 \Omega$**.

The coating can be applied on-site.

Fields of application: For the coating of chamber parts of heat exchangers, evaporators and air coolers, blowers, fans and compressor casings, flue gas funnels/channels, flue gas desulfurization equipment, wash towers, process and storage tanks, vessels and containers. For equipment requiring a coating resistant to water vapor diffusion also with high temperature gradients and electrical conductivity.

Electrically conductive, resitant to chemical and physical attack.



Lamellar-shaped carbon fillers with a crystalline structure consisting of two polytype layers allow simultaneous electrical ablation of the coating while maintaining the high level of chemical and diffusion resistance. The added glass flakes have a reinforcing effect.

Product Data

SÄKAPHEN® SÄKAFLAKE® 900 Black 3K

Number of components	3
Color	Anthracite
pH Range	1 - 12 pH
Total dry film thickness	1500 µm
Temperature resistance dry (dry air oven)	-20°C - +180°C
Temperature resistance wet (water)	-20°C - +100°C
Resistance to water vapor diffusion	≤ ΔT 85°C
Overcoating Waiting Time	min. 12 hours, 23°C
Chemical Curing	8 days
Linear Thermal Expansion	n/a
Pore testing	not possible / conductive
Pendulum hardness acc. to König	n/a
Shore D Hardness	80 Shore D
Adhesion Test	7 - 11 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	1 Mon 450 / 6 mon 750 mm (1 kg)
Surface smoothness (Ra)	3,5 µm Ø 3 readings
Surface tension	> 44 < 48 mN/m
Crosscut	Class 2
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

In case of placing an order for refurbishing an existing coating, the aforementioned report is taken as a basis for documenting the entire work. The complete documentation is handed over to the customer.

900 Topc

SÄKAFLAKE® 900 Topcoat 3K

The images are for illustration purposes only and may differ from the actual appearance of the product.

PLURAL COMPONENT, VINYL ESTER EPOXY NOVOLAC-BASED ABRASION-RESISTANT MICRO GLASS FLAKE-FILLED COATING FOR STRONGLY ACIDIC TO STRONGLY ALKALINE MEDIA. GREEN, SATIN.

SÄKAPHEN® SÄKAFLAKE® 900 Topcoat 3K is a plural component **vinyl ester epoxy novolac**-based **abrasion-resistant micro glass flake-filled** coating.

The coating is chemically resistant against **aggressive** substances such as **acids**, **bases**, salt solutions and all types of water, including brackish, river and sea water as well as deionized water.

The coating can be applied on-site.

Fields of application: For coating of sealing faces of equipment which has been coated with SÄKAFLAKE® 900 or for application on other components such as process vessels, pipelines and various components whose chemical exposure requires the chemical resistance of a vinyl ester epoxy novolac system.

Improved temperature resistance, improved chemical resistance, longer shelf life.

Epoxy Novolac as backbone in vinyl ester multi-resin systems enhances the overall performance of the coating. Such coating systems are resistant to a wide range of medium from strongly alkaline (NaClO) to extremely sour (HCL), including hydrocarbons from crude to solvents.

Product Data

SÄKAPHEN® SÄKAFLAKE® 900 Topcoat 3K

Number of components	3
Color	Green
pH Range	1 - 12 pH
Total dry film thickness	300 µm
Temperature resistance dry (dry air oven)	-20°C - +180°C
Temperature resistance wet (water)	-20°C - +100°C
Resistance to water vapor diffusion	≤ ΔT 30°C
Overcoating Waiting Time	min. 12 hours, 23°C
Chemical Curing	8 days
Linear Thermal Expansion	n/a
Pore testing	67,5 Volt
Pendulum hardness acc. to König	126 sec (6°)
Shore D Hardness	87 Shore D
Adhesion Test	> 13 N/mm² [MPa]
Salt spray test	n/a
Impact Strength	500 mm (1 kg)
Surface smoothness (Ra)	0,67 µm Ø 3 readings
Surface tension	> 35 < 38 mN/m
Crosscut	Class 0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	n/a

Product certificates are available for download on www.saekaphen.de.

SÄKAPHEN®

Your perfect partner for corrosion protection

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