

Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 14® E
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	For the coating of heat exchangers, air coolers, condensers, turbines and compressor rotors, impellers, salt dissolving installations, pipeworks, prover loops, centrifuges, tank containers.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Dark Green
Surface	-	Glossy
General chemical resistance (All resistances have to be inquired separately!)	-	Resistant to organic and inorganic acids, salt solutions, aliphatic and aromatic hydrocarbons, fume gases, alcohols, cooling water including brackish, river and sea water as well as deionized water.
pH Range	pH	1 - 8
Wet Film Thickness per layer	µm	100
Total dry film thickness	µm	180-200
Coverage	approx. kg/m²/DFT	0,4 kg / m² / 80µm 1,0 kg / m² / 200µm
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	µm	40 - 60 µm
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	≤ ΔT 30°C
Overcoating Waiting Time	hours/23°C	no time limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	µm	(VDE 0304): 33*10-6 mm/mm°C
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	213
Shore D Hardness	Shore D	94
Adhesion Test	N/mm² [MPa]	> 20
Salt spray test	hours	1400
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	µm Ø 3 readings	0,89
Surface tension	mN/m	> 28 < 35
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	14
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	2,65

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 14® E BKW
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	Filler-free and pigment-free top coat for Si 14® E, especially for the use inside tank containers, vessels and containers carrying chlorinated hydrocarbons.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Clear (Topcoat on green)
Surface	-	Glossy
General chemical resistance (All resistances have to be inquired separately!)	-	Resistant to organic and inorganic acids, salt solutions, aliphatic and aromatic chlorinated hydrocarbons.
pH Range	pH	1 - 8
Wet Film Thickness per layer	µm	50
Total dry film thickness	µm	25-30
Coverage	approx. kg/m²/DFT	0,2 kg / m² / 200µm
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	µm	40 - 60 µm
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	≤ ΔT 30°C
Overcoating Waiting Time	hours/23°C	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	µm	(VDE 0304): 33*10-6 mm/mm°C
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	214
Shore D Hardness	Shore D	94
Adhesion Test	N/mm² [MPa]	> 20
Salt spray test	hours	under examination
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	µm Ø 3 readings	0,53
Surface tension	mN/m	> 28 < 35
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	n/a
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	n/a

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 14® EG
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	For the coating of condensers, condensate receivers, evaporators, thermal degassers, hot water and steam stressed plant parts, uninsulated tanks. Especially suitable for plant parts that are exposed to hot water and steam in neutral and acidic environment. The coating is resistant to water vapour diffusion.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Red
Surface	-	Matt
General chemical resistance (All resistances have to be inquired separately!)	-	Diffusion resistant and chemically resistant to various weak acidic to light alkaline aqueous liquids and vapors, fume gases, organic and inorganic acids, aromatic and aliphatic solvents, all types of cooling waters including brackish, river and sea water.
pH Range	pH	3 - 8
Wet Film Thickness per layer	µm	100
Total dry film thickness	µm	250
Coverage	approx. kg/m²/DFT	1,3 kg / m² / 250µm
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	µm	40 - 60 µm
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	≤ ΔT 85°C
Overcoating Waiting Time	hours/23°C	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	µm	(VDE 0304): 22*10-6 mm/mm°C
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	134
Shore D Hardness	Shore D	94
Adhesion Test	N/mm² [MPa]	> 20
Salt spray test	hours	under examination
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	µm Ø 3 readings	2,00
Surface tension	mN/m	n/a
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	n/a
Crosscut	class	1
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	3,46

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 17® E
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	Suitable for the coating of steel containers for storage and transportation of inflammable liquids classified as dangerous according to class A1 / All and B as well as for water endangering flammable liquids (aliphatic and aromatic chlorinated hydrocarbons) due to an electrical surface resistance less than $10^7 \Omega$.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Olive
Surface	-	Satin finished
General chemical resistance (All resistances have to be inquired separately!)	-	Electrically conductive and chemically resistant to various liquid and gaseous aliphatic and aromatic hydrocarbons, organic and inorganic acids, salt solutions, oils and greases, acidic to weak alkaline liquids up to max.pH 8. Diffusion resistant.
pH Range	pH	1-8
Wet Film Thickness per layer	μm	100
Total dry film thickness	μm	180-200
Coverage	approx. kg/m ² /DFT	1,2 kg / m ² / 200 μm
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	μm	40 - 60 μm
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	$\leq \Delta T 85^\circ\text{C}$
Overcoating Waiting Time	hours/23°C	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	μm	(VDE 0304): 29*10-6 mm/mm°C
Pore testing	Volts	9 V
Pendulum hardness acc. to König	6° sec	134
Shore D Hardness	Shore D	95
Adhesion Test	N/mm ² [MPa]	>30
Salt spray test	hours	1250
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	μm Ø 3 readings	2,8
Surface tension	mN/m	>38 <41
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	6
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	9,24

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 17® N
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	For the coating of storage-, transportation- and process vessels, pipe works, rotating equipment and other equipment where excellent chemical resistance as well as enhanced abrasion resistance and/or resistance against diffusible mediums is needed.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Grey - olive
Surface	-	Satin finished
General chemical resistance (All resistances have to be inquired separately!)	-	Abrasion resistant as well as chemically resistant to metal oxichlorides (VOCL3), HF conc. and various substances ranging from strongly acidic to light alkaline aqueous liquids and vapors, fume gases, organic and inorganic acids, chlorinated aromatic and aliphatic hydrocarbons, oils and greases. Diffusion resistant.
pH Range	pH	1 - 8
Wet Film Thickness per layer	µm	100
Total dry film thickness	µm	180-200
Coverage	approx. kg/m²/DFT	1,1 kg / m² / 200µm
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	µm	40 - 60 µm
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	≤ ΔT 85°C
Overcoating Waiting Time	hours/23°C	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	µm	(VDE 0304): 29*10-6 mm/mm°C
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	153
Shore D Hardness	Shore D	95
Adhesion Test	N/mm² [MPa]	>30
Salt spray test	hours	1250
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	µm Ø 3 readings	1,27
Surface tension	mN/m	>38 <41
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	6
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	n/a

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 17® TC
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	For the coating of ISO tank containers, process vessels, pipe works, rotating equipment and other equipment where excellent chemical resistance as well as abrasion resistance and/or enhanced permeation resistance ($\Delta t < 65^{\circ}\text{C}$) is needed..
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Anthracite
Surface	-	Satin finished
General chemical resistance (All resistances have to be inquired separately!)	-	Abrasion resistant with enhanced permeation resistance and chemically resistant to various substances ranging from strongly acidic to light alkaline aqueous liquids and vapors, fume gases, organic and inorganic acids, chlorinated aromatic and aliphatic hydrocarbons, all types of cooling waters including brackish, river and sea water as well as deionized water, oils and greases.
pH Range	pH	1-8
Wet Film Thickness per layer	μm	100
Total dry film thickness	μm	180-200
Coverage	approx. $\text{kg}/\text{m}^2/\text{DFT}$	1,1 $\text{kg} / \text{m}^2 / 200\mu\text{m}$
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	μm	40 - 60 μm
Temperature resistance dry (dry air oven)	$^{\circ}\text{C}$	-20 $^{\circ}\text{C}$ to +180 $^{\circ}\text{C}/200^{\circ}\text{C}$
Temperature resistance wet (water)	$^{\circ}\text{C}$	-20 $^{\circ}\text{C}$ to +180 $^{\circ}\text{C}/200^{\circ}\text{C}$
Resistance to water vapor diffusion	$^{\circ}\text{C}$	$\leq \Delta T 65^{\circ}\text{C}$
Overcoating Waiting Time	hours/23 $^{\circ}\text{C}$	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	μm	(VDE 0304): 29*10-6 $\text{mm}/\text{mm}^{\circ}\text{C}$
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	153
Shore D Hardness	Shore D	95
Adhesion Test	N/mm^2 [MPa]	>30
Salt spray test	hours	1250
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	μm Ø 3 readings	1,27
Surface tension	mN/m	>38 <41
Taber Abrasion resistance	CS17, 1kg load $\text{mg}/1000\text{r.}$	6
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	n/a

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Product Data Sheet



Product name	Unit	SÄKAPHEN® Si 17® TC Antibakteriell
Properties	-	Heat Cured Duroplast
Resin base	-	Phenolic resin blend
Field of Application	-	For the coating of ISO tank containers, process vessels, pipe works, rotating equipment and other equipment where excellent chemical resistance as well as abrasion resistance and/or enhanced permeation resistance ($\Delta t < 65^\circ\text{C}$) in combination with antibacterial properties of the coating.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	reddish
Surface	-	Satin finished
General chemical resistance (All resistances have to be inquired separately!)	-	Abrasion resistant with enhanced permeation resistance and antispetic properties, chemically resistant to various mediums ranging from strongly acidic to light alkaline aqueous liquids and vapors, fume gases, organic and inorganic acids, chlorinated aromatic and aliphatic hydrocarbon, all types of cooling waters including brackish, river and sea water as well as deionized water, oils and greases.
pH Range	pH	1-8
Wet Film Thickness per layer	μm	100
Total dry film thickness	μm	180-200
Coverage	approx. $\text{kg}/\text{m}^2/\text{DFT}$	1,1 $\text{kg} / \text{m}^2 / 200\mu\text{m}$
Surface Preparation	Sa	SA2 ½ - SA 3
Surface Profile	μm	40 - 60 μm
Temperature resistance dry (dry air oven)	$^\circ\text{C}$	-20 $^\circ\text{C}$ to +180 $^\circ\text{C}/200^\circ\text{C}$
Temperature resistance wet (water)	$^\circ\text{C}$	-20 $^\circ\text{C}$ to +180 $^\circ\text{C}/200^\circ\text{C}$
Resistance to water vapor diffusion	$^\circ\text{C}$	$\leq \Delta T 65^\circ\text{C}$
Overcoating Waiting Time	hours/23 $^\circ\text{C}$	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	μm	(VDE 0304): 29*10-6 mm/mm $^\circ\text{C}$
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	153
Shore D Hardness	Shore D	95
Adhesion Test	N/mm^2 [MPa]	>30
Salt spray test	hours	1250
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	μm Ø 3 readings	1,27
Surface tension	mN/m	>38 <41
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	6
Crosscut	class	0
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	n/a

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Product Data Sheet



Product name	Unit	SÄKAPHEN® TC Lining Deck
Properties	-	Heat Cured Duroplast Coating
Resin base	-	Duroplastic resin blend
Field of Application	-	400 micron DFT, high build coating system for the coating of various transportation and storage containers, in particular ISO tank containers, but also process vessels, pipework and impellers.
Cure Mechanism	-	Heat cured
Quantity of components	-	1
Color	-	Red (Top coat)
Surface	-	Satin finished
General chemical resistance (All resistances have to be inquired separately!)	-	Chemically resistant to various strongly acidic to weakly alkaline media, aliphatic and aromatic chlorinated hydrocarbons, as well as organic and inorganic salt solutions - certified by Bureau Veritas
pH Range	pH	1 - 13
Wet Film Thickness per layer	µm	100
Total dry film thickness	µm	350--400
Coverage	approx. kg/m²/DFT	0,5 kg / m² / 150µm
Surface Preparation	Sa	Top coat to be applied on SÄKAPHEN® TC Lining Grund
Surface Profile	µm	Top coat to be applied on SÄKAPHEN® TC Lining Grund
Temperature resistance dry (dry air oven)	°C	-20°C to +180°C/200°C
Temperature resistance wet (water)	°C	-20°C to +180°C/200°C
Resistance to water vapor diffusion	°C	≤ ΔT 30°C
Overcoating Waiting Time	hours/23°C	no limitations
Chemical Curing	days	after final bake
Linear Thermal Expansion	µm	n/a
Pore testing	Volts	67,5
Pendulum hardness acc. to König	6° sec	195
Shore D Hardness	Shore D	93
Adhesion Test	N/mm² [MPa]	> 30
Salt spray test	hours	n/a
Impact Strength	mm (1 kg)	> 1000
Surface smoothness (Ra)	µm Ø 3 readings	<1
Surface tension	mN/m	<28
Taber Abrasion resistance	CS17, 1kg load mg/1000r.	14
Crosscut	class	1
Heat conductivity Ø 12,7x2,0mm on C-Steel with 67,37 w/mK	W/mK	n/a

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