

## Product Data Sheet



| Product name                                                                     | Unit                                         | SÄKAPHEN® SÄKAFLAKE® 900 Schwarz 3K                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Properties                                                                       | -                                            | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Resin base                                                                       | -                                            | Novolac Vinyl Ester, glass flake filled                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Field 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 vapour diffusion also with high temperature gradients and electrical conductivity (electrical surface resistance is less than $10^7 \Omega$ ). |
| Cure Mechanism                                                                   | -                                            | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Quantity of components                                                           | -                                            | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Color                                                                            | -                                            | Anthracite                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Surface                                                                          | -                                            | Matt rough                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| General chemical resistance<br>(All resistances have to be inquired separately!) | -                                            | The coating distinguishes itself through high temperature- and diffusion resistance and excellent chemical resistance against aggressive substances such as acids, bases, solvents, salt solvents, fluegas and all types of water, including brackish, river and sea water as well as deionized water.                                                                                                                                                     |
| pH Range                                                                         | pH                                           | 1-12                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Wet Film Thickness per layer                                                     | $\mu\text{m}$                                | 500 $\mu\text{m}$                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Total dry film thickness                                                         | $\mu\text{m}$                                | 1500                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Coverage                                                                         | approx.<br>$\text{kg}/\text{m}^2/\text{DFT}$ | 3,3 $\text{kg} / \text{m}^2 / 1500\mu\text{m}$                                                                                                                                                                                                                                                                                                                                                                                                             |
| Surface Preparation                                                              | Sa                                           | SA2 ½ - SA 3                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Surface Profile                                                                  | $\mu\text{m}$                                | 100                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Temperature resistance dry<br>(dry air oven)                                     | °C                                           | -20°C to +180°C                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Temperature resistance wet<br>(water)                                            | °C                                           | -20°C to 100°C                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Resistance to water vapor diffusion                                              | °C                                           | $\leq \Delta T 85^\circ\text{C}$                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Overcoating Waiting Time                                                         | hours/23°C                                   | min. 12 hours,                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Chemical Curing                                                                  | days                                         | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Linear Thermal Expansion                                                         | $\mu\text{m}$                                | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pore testing                                                                     | Volts                                        | not possible / conductive                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pendulum hardness acc. to König                                                  | 6° sec                                       | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Shore D Hardness                                                                 | Shore D                                      | 80                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Adhesion Test                                                                    | $\text{N}/\text{mm}^2$ [MPa]                 | 7 - 11                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Salt spray test                                                                  | hours                                        | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Impact Strength                                                                  | mm (1 kg)                                    | 1 Mon 450 / 6 Mon 750                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Surface smoothness (Ra)                                                          | $\mu\text{m}$<br>Ø 3 readings                | 3,50                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Surface tension                                                                  | mN/m                                         | >44 <48                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Taber Abrasion resistance, CS17<br>wheel, 1kg                                    | mg/1000 r.                                   | 50                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Crosscut                                                                         | class                                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Heat conductivity<br>Ø 12,7x2,0mm on C-Steel with<br>67,37 w/mK                  | W/mK                                         | n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

All recommendations contained herein are correct to the best of our knowledge. We do, however, not bear any responsibility for the accuracy of the contents. No part of this document may be reproduced without the prior permission of SÄKAPHEN GmbH, Bottroper Straße 275, 45964 Gladbeck/Germany.

## Product Data Sheet



|                                                                                  |                      |                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                                                                     | Unit                 | SÄKAPHEN® SÄKAFLAKE® 900 Topcoat 3K                                                                                                                                                                                                                                                                    |
| Properties                                                                       | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                           |
| Resin base                                                                       | -                    | Novolac Vinyl Ester, glass flake filled                                                                                                                                                                                                                                                                |
| Field of Application                                                             | -                    | For the coating of sealing surfaces where the connecting surfaces are coated with SÄKAPHEN® SÄKAFLAKE® 900 White 3K or SÄKAPHEN® SÄKAFLAKE® 900 Black 3K.                                                                                                                                              |
| Cure Mechanism                                                                   | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                           |
| Quantity of components                                                           | -                    | 3                                                                                                                                                                                                                                                                                                      |
| Color                                                                            | -                    | Green                                                                                                                                                                                                                                                                                                  |
| Surface                                                                          | -                    | Matt                                                                                                                                                                                                                                                                                                   |
| General chemical resistance<br>(All resistances have to be inquired separately!) | -                    | The coating distinguishes itself through high temperature- and diffusion resistance and excellent chemical resistance against aggressive substances such as acids, bases, solvents, salt solvents, fluegas and all types of water, including brackish, river and sea water as well as deionized water. |
| pH Range                                                                         | pH                   | 1-12                                                                                                                                                                                                                                                                                                   |
| Wet Film Thickness per layer                                                     | µm                   | 150                                                                                                                                                                                                                                                                                                    |
| Total dry film thickness                                                         | µm                   | 300                                                                                                                                                                                                                                                                                                    |
| Coverage                                                                         | approx.<br>kg/m²/DFT | 0,8 kg / m² / 300µm                                                                                                                                                                                                                                                                                    |
| Surface Preparation                                                              | Sa                   | SA2 ½ - SA 3                                                                                                                                                                                                                                                                                           |
| Surface Profile                                                                  | µm                   | 40 - 60 µm                                                                                                                                                                                                                                                                                             |
| Temperature resistance dry<br>(dry air oven)                                     | °C                   | -20°C to +180°C                                                                                                                                                                                                                                                                                        |
| Temperature resistance wet<br>(water)                                            | °C                   | -20°C to 100°C                                                                                                                                                                                                                                                                                         |
| Resistance to water vapor diffusion                                              | °C                   | ≤ ΔT 30°C                                                                                                                                                                                                                                                                                              |
| Overcoating Waiting Time                                                         | hours/23°C           | min. 12 hours,                                                                                                                                                                                                                                                                                         |
| Chemical Curing                                                                  | days                 | 8                                                                                                                                                                                                                                                                                                      |
| Linear Thermal Expansion                                                         | µm                   | n/a                                                                                                                                                                                                                                                                                                    |
| Pore testing                                                                     | Volts                | 67,5                                                                                                                                                                                                                                                                                                   |
| Pendulum hardness acc. to König                                                  | 6° sec               | 126                                                                                                                                                                                                                                                                                                    |
| Shore D Hardness                                                                 | Shore D              | 87                                                                                                                                                                                                                                                                                                     |
| Adhesion Test                                                                    | N/mm² [MPa]          | > 13                                                                                                                                                                                                                                                                                                   |
| Salt spray test                                                                  | hours                | n/a                                                                                                                                                                                                                                                                                                    |
| Impact Strength                                                                  | mm (1 kg)            | 500                                                                                                                                                                                                                                                                                                    |
| Surface smoothness (Ra)                                                          | µm<br>Ø 3 readings   | 0,67                                                                                                                                                                                                                                                                                                   |
| Surface tension                                                                  | mN/m                 | >35 <38                                                                                                                                                                                                                                                                                                |
| Taber Abrasion resistance, CS17<br>wheel, 1kg                                    | mg/1000 r.           | under examination                                                                                                                                                                                                                                                                                      |
| Crosscut                                                                         | class                | 0                                                                                                                                                                                                                                                                                                      |
| Heat conductivity<br>Ø 12,7x2,0mm on C-Steel with<br>67,37 w/mK                  | W/mK                 | n/a                                                                                                                                                                                                                                                                                                    |

All recommendations contained herein are correct to the best of our knowledge. We do, however, not bear any responsibility for the accuracy of the contents. No part of this document may be reproduced without the prior permission of SÄKAPHEN GmbH, Bottroper Straße 275, 45964 Gladbeck/Germany.

## Product Data Sheet



|                                                                                  |                      |                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                                                                     | Unit                 | SÄKAPHEN® SÄKAFLAKE® 900 Weiß 3K                                                                                                                                                                                                                                                                                                                                   |
| Properties                                                                       | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                                                                                       |
| Resin base                                                                       | -                    | Novolac Vinyl Ester, glass flake filled                                                                                                                                                                                                                                                                                                                            |
| Field 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 vapour diffusion also with high temperature gradients. |
| Cure Mechanism                                                                   | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                                                                                                                       |
| Quantity of components                                                           | -                    | 3                                                                                                                                                                                                                                                                                                                                                                  |
| Color                                                                            | -                    | White                                                                                                                                                                                                                                                                                                                                                              |
| Surface                                                                          | -                    | Matt rough                                                                                                                                                                                                                                                                                                                                                         |
| General chemical resistance<br>(All resistances have to be inquired separately!) | -                    | The coating distinguishes itself through high temperature- and diffusion resistance and excellent chemical resistance against aggressive substances such as acids, bases, solvents, salt solvents, fluegas and all types of water, including brackish, river and sea water as well as deionized water.                                                             |
| pH Range                                                                         | pH                   | 1-12                                                                                                                                                                                                                                                                                                                                                               |
| Wet Film Thickness per layer                                                     | µm                   | 500 µm                                                                                                                                                                                                                                                                                                                                                             |
| Total dry film thickness                                                         | µm                   | 1500                                                                                                                                                                                                                                                                                                                                                               |
| Coverage                                                                         | approx.<br>kg/m²/DFT | 3,3 kg / m² / 1500µm                                                                                                                                                                                                                                                                                                                                               |
| Surface Preparation                                                              | Sa                   | SA2 ½ - SA 3                                                                                                                                                                                                                                                                                                                                                       |
| Surface Profile                                                                  | µm                   | 100                                                                                                                                                                                                                                                                                                                                                                |
| Temperature resistance dry<br>(dry air oven)                                     | °C                   | -20°C to +180°C                                                                                                                                                                                                                                                                                                                                                    |
| Temperature resistance wet<br>(water)                                            | °C                   | -20°C to 100°C                                                                                                                                                                                                                                                                                                                                                     |
| Resistance to water vapor diffusion                                              | °C                   | ≤ ΔT 85°C                                                                                                                                                                                                                                                                                                                                                          |
| Overcoating Waiting Time                                                         | hours/23°C           | min. 12 hours,                                                                                                                                                                                                                                                                                                                                                     |
| Chemical Curing                                                                  | days                 | 8                                                                                                                                                                                                                                                                                                                                                                  |
| Linear Thermal Expansion                                                         | µm                   | n/a                                                                                                                                                                                                                                                                                                                                                                |
| Pore testing                                                                     | Volts                | 5000                                                                                                                                                                                                                                                                                                                                                               |
| Pendulum hardness acc. to König                                                  | 6° sec               | n/a                                                                                                                                                                                                                                                                                                                                                                |
| Shore D Hardness                                                                 | Shore D              | 85                                                                                                                                                                                                                                                                                                                                                                 |
| Adhesion Test                                                                    | N/mm² [MPa]          | 10 - 15                                                                                                                                                                                                                                                                                                                                                            |
| Salt spray test                                                                  | hours                | 1250                                                                                                                                                                                                                                                                                                                                                               |
| Impact Strength                                                                  | mm (1 kg)            | 1 Mon 450 / 6 Mon 900                                                                                                                                                                                                                                                                                                                                              |
| Surface smoothness (Ra)                                                          | µm<br>Ø 3 readings   | 5,20                                                                                                                                                                                                                                                                                                                                                               |
| Surface tension                                                                  | mN/m                 | >38 <41                                                                                                                                                                                                                                                                                                                                                            |
| Taber Abrasion resistance, CS17<br>wheel, 1kg                                    | mg/1000 r.           | under examination                                                                                                                                                                                                                                                                                                                                                  |
| Crosscut                                                                         | class                | 2                                                                                                                                                                                                                                                                                                                                                                  |
| Heat conductivity<br>Ø 12,7x2,0mm on C-Steel with<br>67,37 w/mK                  | W/mK                 | n/a                                                                                                                                                                                                                                                                                                                                                                |

All recommendations contained herein are correct to the best of our knowledge. We do, however, not bear any responsibility for the accuracy of the contents. No part of this document may be reproduced without the prior permission of SÄKAPHEN GmbH, Bottroper Straße 275, 45964 Gladbeck/Germany.

## Product Data Sheet



| Product name                                                                     | Unit                 | SÄKAPHEN® SÄKAFLAKE® 957 Rot 3K                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Properties                                                                       | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                            |
| Resin base                                                                       | -                    | Epoxy Vinyl Ester, glass flake filled                                                                                                                                                                                                                                   |
| Field of Application                                                             | -                    | For the lining of process equipment exposed to acids and caustic solution, such as vessels, ducts and for on-site maintenance projects, particularly in the chemical industry.                                                                                          |
| Cure Mechanism                                                                   | -                    | Cold Cured Duroplast Coating                                                                                                                                                                                                                                            |
| Quantity of components                                                           | -                    | 3                                                                                                                                                                                                                                                                       |
| Color                                                                            | -                    | Red                                                                                                                                                                                                                                                                     |
| Surface                                                                          | -                    | Matt rough                                                                                                                                                                                                                                                              |
| General chemical resistance<br>(All resistances have to be inquired separately!) | -                    | The coating distinguishes itself through temperature- and diffusion resistance as well as excellent chemical resistance with a specifically good resistance against sodium hypochlorite and with a strongly decreased blushing tendencies when exposed to strong acids. |
| pH Range                                                                         | pH                   | 1-12                                                                                                                                                                                                                                                                    |
| Wet Film Thickness per layer                                                     | µm                   | 500 µm                                                                                                                                                                                                                                                                  |
| Total dry film thickness                                                         | µm                   | 1500                                                                                                                                                                                                                                                                    |
| Coverage                                                                         | approx.<br>kg/m²/DFT | 3,3 kg / m² / 1500µm                                                                                                                                                                                                                                                    |
| Surface Preparation                                                              | Sa                   | SA2 ½ - SA 3                                                                                                                                                                                                                                                            |
| Surface Profile                                                                  | µm                   | 100                                                                                                                                                                                                                                                                     |
| Temperature resistance dry<br>(dry air oven)                                     | °C                   | -20°C to +180°C                                                                                                                                                                                                                                                         |
| Temperature resistance wet<br>(water)                                            | °C                   | -20°C to 100°C                                                                                                                                                                                                                                                          |
| Resistance to water vapor diffusion                                              | °C                   | ≤ ΔT 85°C                                                                                                                                                                                                                                                               |
| Overcoating Waiting Time                                                         | Stunden/23°C         | min. 12 hours,                                                                                                                                                                                                                                                          |
| Chemical Curing                                                                  | Tage                 | 8                                                                                                                                                                                                                                                                       |
| Linear Thermal Expansion                                                         | µm                   | n/a                                                                                                                                                                                                                                                                     |
| Pore testing                                                                     | Volt                 | not possible / conductive                                                                                                                                                                                                                                               |
| Pendulum hardness acc. to König                                                  | 6° sec               | n/a                                                                                                                                                                                                                                                                     |
| Shore D Hardness                                                                 | Shore D              | 80                                                                                                                                                                                                                                                                      |
| Adhesion Test                                                                    | N/mm² [MPa]          | 7 - 11                                                                                                                                                                                                                                                                  |
| Salt spray test                                                                  | hours                | n/a                                                                                                                                                                                                                                                                     |
| Impact Strength                                                                  | mm (1 kg)            | 1 Mon 450 / 6 Mon 750                                                                                                                                                                                                                                                   |
| Surface smoothness (Ra)                                                          | µm<br>Ø 3 readings   | 3,50                                                                                                                                                                                                                                                                    |
| Surface tension                                                                  | mN/m                 | >44 <48                                                                                                                                                                                                                                                                 |
| Taber Abrasion resistance, CS17<br>wheel, 1kg                                    | mg/1000 r.           | under examination                                                                                                                                                                                                                                                       |
| Crosscut                                                                         | Klasse               | 2                                                                                                                                                                                                                                                                       |
| Heat conductivity<br>Ø 12,7x2,0mm on C-Steel with<br>67,37 w/mK                  | W/mK                 | n/a                                                                                                                                                                                                                                                                     |

All recommendations contained herein are correct to the best of our knowledge. We do, however, not bear any responsibility for the accuracy of the contents. No part of this document may be reproduced without the prior permission of SÄKAPHEN GmbH, Bottroper Straße 275, 45964 Gladbeck/Germany.