



PRODUCT DATA SHEET

SAXON-GUARD HB-21

DESCRIPTION

Two-component, high-build, polyamine adduct-cured epoxy coating

CHARACTERISTICS

- ☞ Salt water resistance
- ☞ Anticorrosion properties
- ☞ Surface tolerant and abrasion resistant
- ☞ Continues to cure even in direct contact with water.
- ☞ Long-lasting protection with a single coat applied.
- ☞ Resistant to well-designed cathodic protection
- ☞ Suitable for application on exterior buried pipes
- ☞ Suitable on wet blast or ultra-high pressure water cleaned substrates (damp or dry)

COLOR

White, yellow and black (other colors available on request)

Data for mixed product

Number of components	Two
Mass density	1.5 kg/l (12.1lb/US gal)
Volume solids	85 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 122.0 g/kg UK PG 6/23(92) Appendix 3: max. 207.0 g/l (approx. 1.7 lb/US gal) EPA Method 24: 200.0 g/ltr (1.7lb/USgal)
Recommended dry film thickness	150 - 1000 µm (6.0 µm - 40.0 mils) depending on system
Theoretical spreading rate	4.3 m ² /l for 200 (170 ft ² /US gal for 8.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 3.5 hours Maximum: 14 days
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:

- See ADDITIONAL DATA - Spreading rate and film thickness
- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time





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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Coating performance will depend upon the conditions of the surface to be applied.
- For atmospheric application, abrasive blast to ISO- Sa2½ or minimum SSPC SP- 6, power tool cleaned to ISO- St3 (SSPC SP- 3) or hand tool cleaned to ISO- St2 (SSPC SP- 2) or ultra high pressure water jet to SSPC SP WJ- 2(L) / NACE WJ- 2(L)
- For immersion application: steel; blast cleaned to ISO- Sa2½ (SSPC SP- 10), blasting profile 40 - 75 µm (1.6 - 3.0 mils)
- Higher profiles (>75 microns, 3.0 mils) is allowable with appropriate coating thickness.
- If a previous coat is applied it must be dry and free from any contamination.

Substrate temperature and application conditions

- Substrate temperature during application should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 75:25 (3:1)

- Thinner should be added after mixing the components
- Do not add more thinner than is required by appropriate application property
- Adding too much thinner results in reduced sag resistance and slow curing times.

Induction time

None

Pot life

2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA - Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

4 - 8%, depending on required thickness and application conditions

Nozzle orifice

1.5 - 3.0 mm (approx. 0.060 - 0.110 in)

Nozzle pressure

0.2 - 0.4 MPa (approx. 2 - 4 bar; 29 - 58 p.s.i.)





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Airless spray

Recommended thinner
THINNER 91-92

Volume of thinner
0 - 8%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.53 - 0.69 mm (0.021 - 0.027 in)

Nozzle pressure
15.0 MPa (approx. 150 bar; 2176 p.s.i.)

Brush/roller

Recommended thinner
THINNER 91-92

Volume of thinner
0 - 5%

Cleaning solvent

THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
200 µm (8.0 mils)	4.3 m ² /l (170 ft ² /US gal)
500 µm (20.0 mils)	1.7 m ² /l (68 ft ² /US gal)

Overcoating interval for DFT up to 500 µm (20.0 mils)							
Overcoating with...	Interval	-5°C (23°F)	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	36 hours	14 hours	7 hours	3.5 hours	2 hours	1.5 hours
	Maximum	2 months	1.5 months	1 month	28 days	21 days	14 days
epoxy coatings	Minimum	36 hours	14 hours	7 hours	3.5 hours	2 hours	1.5 hours
	Maximum	1 month	28 days	21 days	14 days	7 days	4 days
polyurethanes	Minimum	48 hours	22 hours	14 hours	10 hours	6 hours	4 hours
	Maximum	1 month	28 days	21 days	14 days	7 days	4 days

Note: Surface should be dry and free from any contamination





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Curing time for DFT up to 500 µm (20 mils)			
Substrate temperature	Dry to touch	Dry to handle	Full cure
-5 °C (23 °F)	24 hours	48 hours	30 days
5 °C (41 °F)	10 hours	24 hours	18 days
10 °C (50 °F)	5 hours	16 hours	14 days
20 °C (68 °F)	3 hours	8 hours	7 days
30 °C (86 °F)	2 hours	5 hours	5 days
40 °C (104 °F)	1 hour	3 hours	3 days

Notes:

- For repair of jetties, piling etc. between tides, SAXON -GUARD HB-21 can be immersed within 30 minutes. Whitening can be happened for dark color, but will not affect anti-corrosive properties.
- The curing time is related to the DFT of the paint and ventilation of the drying condition. High DFT and poor ventilation will slow curing
- When total DFT is higher than 1500 µm (60.0 mils), curing times have to be 2 - 2.5 times in order to obtain sufficient mechanical strength.
- Adequate ventilation must be maintained during application and curing.

Pot life (at application viscosity)	
Mixed product temperature	Pot life
10 °C (50 °F)	3 hours
20 °C (68 °F)	2 hours
30 °C (86 °F)	1 hour

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