

SIGMASHIELD 880



Globally Available

4 pages

February 2013
Revision of October 2012**Description**

two component high build polyamine adduct cured epoxy coating

PRINCIPAL CHARACTERISTICS

- primarily designed for use in offshore splashzone maintenance
- outstanding sea water resistance
- excellent corrosion resistance
- good abrasion resistance
- continues to cure when immersed in water
- long term protection in a single coat application
- resistant to well designed cathodic protection
- suitable on wet blast or ultra high pressure water (UHPWW) cleaned substrates (damp or dry)

COLOURS AND GLOSS

yellow, black (other colours on request) – gloss

BASIC DATA AT 20 °C(1 g/cm³ = 8.35 lb/US gal; 1 m²/l = 40.7 ft²/US gal)

(data for mixed product)

Mass density	1.45 g/cm ³
Volume solids	85% ± 2%
VOC (Directive 1999/13/EC, SED)	max. 122 g/kg (Directive 1999/13/EC, SED)
VOC (UK PG 6/23(92) appendix 3)	max. 207 g/l (approx. 1.7 lb/gal)
Recommended dry film thickness	200 - 1000 µm depending on system
Theoretical spreading rate	4.3 m ² /l for 200 µm *
Touch dry after	3 hours *
Overcoating interval	min. 3.5 hours *
	max. 14 days
Shelf life (cool and dry place)	at least 12 months
	* see additional data

**RECOMMENDED
SUBSTRATE CONDITIONS
AND TEMPERATURES**

- coating performance will depend upon the surface preparation degree
- **blast cleaning**
 - steel; blast cleaned to ISO-Sa2 or ISO-Sa2½,
 - blasting profile of 40 - 80 µm is recommended
- **hand/power tool cleaning**
 - steel; recommended hand or power tool cleaned to ISO-St3 for new building and ISO-St2 for maintenance
- **coated steel**
 - existing sound epoxy coating systems sufficiently roughened, dry and free from any contamination
- **Hydrojetting**
 - clean till VIS WJ2/3L
- substrate temperature should be at least 3°C above dew point during application and curing

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 75 : 25

- thinner should be added after mixing the components
- do not thin more than is required by appropriate application property
- too much solvent results in reduced sag resistance and slower cure

Induction time

none

Pot life

2 hours at 20 °C *

* see additional data

AIR SPRAY

Recommended thinner

Thinner 91-92

Volume of thinner

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

Nozzle orifice

1.5 - 3 mm

Nozzle pressure

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

AIRLESS SPRAY

Recommended thinner

Thinner 91-92

Volume of thinner

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

Nozzle orifice

approx. 0.53 - 0.68 mm (= 0.021 - 0.027 in)

Nozzle pressure

15 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

Film thickness and spreading rate

theoretical spreading rate m ² /l	4.3	1.7
dft in µm	200	500

Overcoating table for SigmaShield 880 for dft up to 500 µm

substrate temperature	-5°C	5°C	10°C	20°C	30°C	40°C
with epoxy coatings	36 hours	14 hours	7 hours	3.5 hours	2 hours	1.5 hour
with polyurethanes	48 hours	22 hours	14 hours	10 hours	6 hours	4 hours
with itself	60 days	40 days	32 days	28 days	21 days	14 days
with various epoxy- and polyurethane coatings	35 days	28 days	21 days	14 days	7 days	4 days

- surface should be dry and free from any contamination

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Curing

Curing table for dft up to 500 µm

substrate temperature	touch dry	dry to handle
-5°C	24 hours	48 hours
5°C	10 hours	24 hours
10°C	5 hours	16 hours
20°C	3 hours	8 hours
30°C	2 hours	5 hours
40°C	1 hour	3 hours

- The curing time is related to the D.F.T. of the paint and ventilation of the drying condition.
High D.F.T and poor ventilation will slow curing
- premature exposure to water will lead to whitening of dark colours when applied between tides on jetties, piling etc. this will not affect anticorrosive properties of the coating
- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)

Pot life (at application viscosity)

10 °C	3 hours
20 °C	2 hours
30 °C	1 hour

Worldwide availability

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used

REFERENCES

Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430

SAFETY PRECAUTIONS

- for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets
- this is a solvent borne paint and care should be taken to avoid inhalation of spray mist or vapour as well as contact between the wet paint and exposed skin or eyes

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PDS	7743
yellow	1018262200
black	8000002200