

SIGMACOVER™ 410/SIGMACOVER™ 410 LT

DESCRIPTION

Two-component, high solids, high-build, polyamide cured epoxy coating

PRINCIPAL CHARACTERISTICS

- General-purpose epoxy buildcoat in protective coating systems, for steel and concrete structures exposed to atmospheric land or marine conditions
- Excellent durability
- Can be recoated with various two-component and conventional coatings, even after long weathering periods
- Easy application by airless spray
- Good drying- and curing properties at low substrate temperature (down to -5°C (23°F))

COLOR AND GLOSS LEVEL

- MIO and a selected range of colors
- Flat

Notes:

- Epoxy coatings will chalk and fade upon exposure to sunlight, elevated temperatures, or chemical exposure. Discoloration and normal chalking do not impact performance. Light colors will darken over time. Some batch-to-batch variation in color is to be expected. Color matches are approximate.
- The addition of a UV stable topcoat should be considered when using epoxy coatings in cosmetic areas

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal), depending on color MIO: 1.8 kg/l (15.0 lb/US gal)
Volume solids	80 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 126.0 g/kg UK PG 6/23(92) Appendix 3: max. 240.0 g/l (approx. 2.0 lb/US gal) China GB 30981-2020 (tested) 208.0 g/l (approx. 1.7 lb/gal)
Recommended dry film thickness	75 - 225 µm (3.0 - 9.0 mils) depending on system
Theoretical spreading rate	10.7 m ² /l for 75 µm (428 ft ² /US gal for 3.0 mils)
Overcoating Interval	See overcoating tables
Full cure after	7 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



SIGMACOVER™ 410/SIGMACOVER™ 410 LT

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Suitable primer must be dry and free from any contamination
- Surface of previous coat should be sufficiently roughened if necessary
- When applied to zinc silicate, a mist coat and full coat technique is required

Substrate temperature

- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- The temperature of the paint should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Adding too much thinner results in reduced sag resistance and slower cure
- Thinner should be added after mixing the components

Induction time

None

Pot life

6 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 10%

Nozzle orifice

Approx. 0.46 – 0.53 mm (0.018 – 0.021 in)

Nozzle pressure

20.0 - 25.0 MPa (approx. 200 - 250 bar; 2901 - 3626 p.s.i.)

SIGMACOVER™ 410/SIGMACOVER™ 410 LT

Brush/roller

- Application by brush may show brush marking, due to the thixotropic nature of the paint and is most suitable to small areas, tight angle areas or for stripe coating or touch-up
- Application by roller will leave roller marking and is suitable for minimum DFT requirements only
- A roller suitable for epoxy application must be used

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
75 µm (3.0 mils)	10.7 m ² /l (428 ft ² /US gal)
150 µm (6.0 mils)	5.3 m ² /l (214 ft ² /US gal)
200 µm (8.0 mils)	4.0 m ² /l (160 ft ² /US gal)

Overcoating interval for DFT up to 200µm (8 mils) - SIGMACOVER 410						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
various two-pack epoxy and polyurethane coatings	Minimum	36 hours	24 hours	8 hours	6 hours	4 hours
	Maximum	Extended	Extended	Extended	Extended	Extended

Overcoating interval for DFT up to 200µm (8 mils) -SIGMACOVER 410LT						
Overcoating with...	Interval	-5°C (23°F)	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)
various two-pack epoxy and polyurethane coatings	Minimum	48 hours	24 hours	16 hours	12 hours	8 hours
	Maximum	Extended	Extended	Extended	Extended	Extended

Notes:

- Actual maximum overcoating times will be influenced by local conditions
- To ensure optimal adhesion of the next coat, the surface must be dry and free from all contaminations (oil, grease, chalking, etc...) which would require cleaning and/or abrading
- The LT hardener is not available in all regions, please check this with your PPG representative



SIGMACOVER™ 410/SIGMACOVER™ 410 LT

Curing time for DFT up to 200µm (8 mils) - SIGMACOVER 410

Substrate temperature	Dry to touch	Dry to handle	Full cure
5°C (41°F)	12 hours	30 hours	20 days
10°C (50°F)	6 hours	24 hours	14 days
15°C (59°F)	4 hours	10 hours	10 days
20°C (68°F)	3 hours	8 hours	7 days
30°C (86°F)	2 hours	6 hours	5 days
40°C (104°F)	1.5 hours	4 hours	3 days

Curing time for DFT up to 200µm (8 mils) - SIGMACOVER 410LT

Substrate temperature	Dry to touch	Dry to handle	Full cure
-5°C (23°F)	16 hours	24 hours	20 days
0°C (32°F)	11 hours	16 hours	14 days
5°C (41°F)	6 hours	10 hours	10 days
10°C (50°F)	4 hours	8 hours	7 days
15°C (59°F)	3 hours	5 hours	5 days

Notes:

- Ambient temperature during application at -5°C (23°F) is acceptable; however curing to hardness takes longer and complete cure will be reached when the temperature increases
- Adequate ventilation must be maintained during application and curing
- The LT hardener is not available in all regions, please check this with your PPG representative

Pot life (at application viscosity)

Mixed product temperature	Pot life
10°C (50°F)	12 hours
15°C (59°F)	8 hours
20°C (68°F)	6 hours
25°C (77°F)	4 hours
30°C (86°F)	3 hours
40°C (104°F)	2 hours

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

SIGMACOVER™ 410/SIGMACOVER™ 410 LT

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

- EXPLANATION TO PRODUCT DATA SHEETS INFORMATION SHEET 1411

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. **THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG.** Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

