

SIGMACOVER 520 US
 (formerly SigmaCover TCX)

July 2006
 Revision of April 2006

DESCRIPTION High solids, surface tolerant epoxy coating.

PRINCIPAL CHARACTERISTICS

- Multi-purpose, self priming coating for maintenance of substrates exposed to corrosive atmospheric conditions, even where only marginal surface preparation is feasible.
- Suitable for sea water immersion on underwater structures and ships hulls, including bilges and ballast tanks.
- Extended recoating intervals (see table).
- Easy application by airless spray and brush.
- Can be top coated with a variety of coatings and finishes such as epoxies, polyurethanes and antifoulings.
- Meets VOC regulations for General Use category under Federal NESHAP for Shipbuilding and Repair Regulations.

COLORS AND GLOSS Red brown, grey and black – low sheen

BASIC DATA AT 68° F (20°C) (data for mixed product)

Mass density	approx. 12.1 lbs/gal (1.45 g/cm ³)
Solids by volume	approx. 72 %
VOC (by EPA method 24)	1.85 lbs/gal (220 g/ltr)
Recommended dry film thickness	5-8 mils (125-200µm) depending on system
Theo. spreading rate	1,161 ft ² /gal at 1 mil dft (28.7 m ² /ltr for 25 µm)
Touch dry	3 hours
Dry to handle	6 hours
Overcoating interval (with self)	minimum 8-16 hours (see Additional Data) maximum 3 months depending on temperature and finish
Full cure after	7 days
Temperature resistance (dry)	250°F (121°C)
Shelf life (cool and dry place)	minimum 12 months
Flash point (TCC)	base 102°F (39°C) hardener 107°F (42°C)

(7/06)

SIGMACOVER 520 US
(formerly SigmaCover TCX)

**RECOMMENDED SUBSTRATE
CONDITIONS AND
TEMPERATURES**

- Steel; blast cleaned to NACE No.2/SSPC-SP10 (Near White Metal)
- Blast cleaning to SSPC-SP6/NACE No. 3 or Power Tool to SSPC-SP3 is suitable for non-immersion service, provided salt, oil, dirt and other contaminants are removed. Coating life is proportionate to the degree of surface preparation and steel cleanliness.
- The temperature of the substrate should be at least 5°F (3°C) above the dew point.
- Concrete: free of any dust or laitance and not showing any crumbling. The surface must be free of oil, grease salt or other contaminants. Acid etching or blasting may be required to obtain a clean, sound substrate.

INSTRUCTIONS FOR USE

- Mixing ratio by volume: base to hardener 80 : 20
- Power agitate each component to uniform consistency before combining, then again after combining. ***DO NOT*** vary proportions.
- When mixing the temperature of base and hardener should be at least 59°F (15°F), otherwise extra solvent may be required. Too much solvent results in lower sag resistance and slower cure. Thinner should be added after mixing the components.

Induction time	None
Pot life	5 hours at 68°F (20°C)
Relative Humidity	85% maximum

AIRLESS SPRAY

Recommended thinner	91-92 (Flash Point 68°F (20°C))
Volume of thinner	0-6 % depending on required dft
Tip size	0.019 – 0.021 inch (approximately 0.48-0.53 mm)
Tip pressure	2400 - 2700 psi (approximately. 160 - 185 atm.)

Hose should be 3/8" I.D. minimum, but a short 1/4" whip end section may be used to ease application. A maximum hose length of 100 feet is suggested.

(7/06)

SIGMACOVER 520 US
(formerly SigmaCover TCX)

CONVENTIONAL SPRAY

Recommended thinner 91-92 (Flash Point 68°F (20°C))
 Volume of thinner 5-10%
 Tip air cap DeVilbiss 64D or Binks 66PB
 Gun model DeVilbiss MBC or JGA, Binks #18 or #62

Fluid hose should be 3/8" I.D. with a maximum length of 50 feet. Pot should have dual regulation and be kept at same elevation as the spray gun.

BRUSH/ROLLER

Recommended thinner 91-92 (Flash Point 68°F (20°C))
 Volume of thinner 0 – 5%

CLEANING SOLVENT Sigma thinner 90 – 53

Note: Special thinners may be required if applied directly on top of zinc silicate primers.

SAFETY PRECAUTIONS

This product is offered for sale and use only to PROFESSIONALLY TRAINED INDUSTRIAL PERSONNEL. It is NOT FOR RESIDENTIAL USE. This product contains flammable solvents and/or other hazardous ingredients and must be used with caution. Observe all health and safety precautions as listed on the Material Safety Data Sheet during storage and handling, application, drying and disposal. DO NOT ATTEMPT TO USE THIS PRODUCT WITHOUT CONSULTING THE CURRENT "MATERIAL SAFETY DATA SHEET". Material Safety Data Sheets are available from the Customer Service Department at SigmaKalon USA (713-355-3333)

ADDITIONAL DATA

Film thickness and spreading rate	theoretical			
	spreading rate ft ² gal	231	192	144
	dft in mils	5	6	8

max. dft when brushing: 4 mils (100 µm)

Overcoating table for SigmaCover 520 US with two component epoxy paints.

Substrate Temperature	41°F (5°C)	50°F (10°C)	59°F (15°C)	68°F (20°C)	86°F (30°C)	104°F (40°C)
Minimum Interval	24 hours	16 hours	12 hours	8 hours	4 hours	2 hours
Maximum Interval	3 months	3 months	3 months	2 months	2 months	1 month

(7/06)

SIGMACOVER 520 US
(formerly SigmaCover TCX)

Overcoating table when overcoated with antifouling paints.

Substrate Temperature	41°F (5°C)	50°F (10°C)	68°F (20°C)	86°F (30°C)
Minimum Interval	24 hours	12 hours	6 hours	4 hours
Maximum Interval	7 days	4 days	2 days	1 days

Curing Table

Curing Table	Touch dry time	Hard dry time	Full cure time
Substrate temperature			
41°F (5°C)	4 hours	7 hours	7 days
50°F (10°C)	2.5 hours	5 hours	5 days
59°F (15°C)	2 hours	4.5 hours	4 days
68°F (20°C)	90 minutes	4 hours	3 days
86°F (30°C)	60 minutes	3 hours	2 days
104°F (40°C)	30 minutes	2 hours	36 hours

Worldwide availability

While it is the aim of Sigma Coatings to supply the same product on a worldwide basis, slight local modifications can be necessary to comply with legislation or special circumstances. In such situations an alternative product data sheet is published.

REFERENCES

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety, explosion hazard and toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Cleaning of steel and removal of rust	see information sheet 1490

(7/06)

