

## SELECTION & SPECIFICATION DATA

#### Generic Type

Two-Component Epoxy Amine

## Description

An ultra high solids, self-priming epoxy coating with excellent corrosion resistance to marine and petrochemical environments. SP-2884 is used primarily for the corrosion protection of buried pipes and tanks. It is designed for brush and roll use only.

SP-2884 is the same as and identical to Carboguard 104.

- · Outstanding protection of buried pipes and tanks to mechanical and abrasion damage
- · Excellent corrosion resistance to marine and chemical environments
- **Features**
- Excellent corrosion resistance to buried pipes and tanks
- · Excellent resistance to mechanical and abrasion damage
- · Excellent resistance to cathodic disbondment
- Excellent resistance to electric insulation (12000 volts/mm)

Color | Standard color: Green

Finish Semi-Gloss

Self-priming

**Primer** 

Can be overlapped over old coats such as polyethylene, polypropylene, bitumen or itself to fill the gap between the linings.

610 - 3048 microns (24 - 120 mils)

## Wet Film Thickness

Can be applied in a single coat. Recommended dry film thickness is 1,500 microns (60 mils). Maximum dry film thickness in a single coat: 3,048 microns (120 mils)

## **Dry Film Thickness**

610 - 2032 microns (24 - 80 mils) per coat

- · External surfaces for sea lines and pipelines, buried or immersed in sea and
- · fresh water
- · External coating for elbows, valves, joints, fittings etc., buried or immersed in sea and fresh water
- · Piles and related structures
- · Steel and concrete piers
- · Jackets for offshore platforms
- · Coating of immersed areas, topsides, or splash zones of any steel or concrete surface to be immersed in sea or fresh water

#### **Typical Uses**

- · Tanks designed to contain industrial or brackish water, crude oil or refined petroleum products
- Penstocks
- External/Internal coating for sea water inlets
- · Touching up of coating on a mechanically damaged surface

#### **Immersion Service:**

Consult Carboline Technical Service for specific recommendations regarding fluids types, film thickness, etc.

Solid(s) Content | By volume: 98% ± 2%

## **Theoretical Coverage** Rates

38.6 m<sup>2</sup>/l at 25 microns (1572 ft<sup>2</sup>/gal at 1.0 mils) 1.6 m<sup>2</sup>/l at 600 microns (65 ft<sup>2</sup>/gal at 24.0 mils) 0.5 m<sup>2</sup>/l at 2000 microns (20 ft<sup>2</sup>/gal at 80.0 mils) Allow for loss in mixing and application



#### SELECTION & SPECIFICATION DATA

VOC Value(s) | As Supplied: 30 g/l

Dry Temp. Resistance:

Continuous: -10°C to 110°C (14°F to 230°F) **Dry Temp. Resistance**Non-Continuous: -30°C to 150°C (-22°F to 302°F)

**Buried Temp. Resistance:** Continuous: 65°C (149°F)

Non-Continuous: Up to 80°C (176°F)

When exposed to atmospheric agents, condensation or ultraviolet rays, SP-2884 will discolor, chalk and lose gloss as is common with all epoxies.

A urethane topcoat can be applied to add UV stability in atmospheric environments before the maximum recoat window has passed or the surface has been properly abraded.

#### SUBSTRATES & SURFACE PREPARATION

#### General

Limitations

Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.

Grit blasting or other equivalent abrasives in accordance with ISO 8501-1 Sa 2½ (SSPC-SP10) to obtain a blast profile between 40-50 micron (Rz-DIN 30671).

Steel

When working on site, the time between blasting and application must be assessed according to the environmental conditions, but must not extend beyond two hours.

#### **Concrete or CMU**

Concrete must be cured 28 days at 24°C (75°F) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

SMALL up to 200 sq./cm.Withoutsubstrate exposure.

Power tool grinding of damaged areas and application by brush of one coat of SP-2884 up to specified DFT.

## Special Instruction

LARGE or SMALL areas with substrate exposure.

Blast in accordance with ISO 8501-1 (SA 2½)/SSPC-SP10 of all exposed substrate and roughing the close coating and then apply SP-2884 up to specified DFT.

## MIXING & THINNING

Pre-mix the components (Base Part A and Hardener Part B) separately with suitable mechanical mixer, then combine and power mix until homogenous. DO NOT MIX PARTIAL KITS.

Mixing

Component Details for Color: Green: The base (part A) is yellow (0600) and the hardener (part B) is blue (0100)

**Thinning** | Do not thin

Ratio 1:1, by volume 42:58 A to B, by weight



## MIXING & THINNING

Pot Life

9 hours at 5°C (41°F) 60 minutes at 25°C (77°F) 30 minutes at 35°C (95°F)

Pot life ends when coating thickens and loses application properties.

## APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Apply with a brush having a width of ~5-10 cm.

#### **Application procedure:**

- 1) Apply a first coat of SP-2884 properly working it by brush into the substrate to obtain good saturation and wetting.
- 2) Then, wet on wet, apply a homogenous coat to reach the required thickness.
- 3) Properly smooth surface, avoiding the removal of the under applied product.
- **Brush**

4) During application, check wet film thickness frequently.

When working in environments with low temperatures, it is recommended to heat the individual components in a water bath, with electric heating bands or other suitable systems, until the minimum application temperature of 20°C (68°F) is reached. WARNING: EXCESSIVE HEATING REDUCES POT-LIFE.

## **APPLICATION CONDITIONS**

Condition	Material	Surface	Ambient	Humidity
Minimum	20°C (68°F)	5°C (41°F)	3°C (37°F)	0%
Maximum	35°C (95°F)	40°C (104°F)	35°C (95°F)	85%

Apply when the surface temperature will be 3°C (5°F) above the dew point.

Inspection and tests, such adhesion, holiday test, impact test and DFT measurements, must be done only when hardness Shore D reaches a value of 70.

## **CURING SCHEDULE**

Surface Temp.	Dry to Handle	Final Cure Time	Maximum Topcoat Time
5°C (41°F)	120 Hours	20 Days	48 Hours
15°C (59°F)	48 Hours	10 Days	36 Hours
25°C (77°F)	24 Hours	7 Days	24 Hours
35°C (95°F)	18 Hours	3 Days	24 Hours

Backfilling Time Shore D Hardness >= 70



#### **CURING SCHEDULE**

**Hardness Testing** 

#### **Surface Temperature:**

- \* 5°C (41°F) Hardness Shore D:80 150 Hours
- \* 15°C (59°F) Hardness Shore D:65 44 Hours, Hardness Shore D: 70 48 Hours, Hardness Shore D: 80 54 Hours
- \* 25°C (77°F) Hardness Shore D:65 24 Hours, Hardness Shore D: 70 30 Hours, Harness Shore D:80 40 Hours
- \* 35°C (95°F) Hardness Shore D:70 20 Hours, Hardness Shore D:80 28 Hours

#### **Maximum Recoat Window:**

Shore D value less than 65 (or before 8 hours at 40°C)

If maximum recoat is exceeded, special surface preparation is required. Contact your Carboline representative for details

## **CLEANUP & SAFETY**

#### Cleanup

The pumps must be cleaned every time the application is interrupted, even for short periods. Flush with Thinner 2 or Thinner 76 until liquid comes out clean and without residue or coloration.

In case of spillage, absorb and dispose in accordance with local applicable regulations.

#### Safety

Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

#### Ventilation

When used in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. Use MSHA/NIOSH approved supplied air respirator.

#### Caution

All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## PACKAGING, HANDLING & STORAGE

Shelf Life Base (Part A): 18 months at 24°C (75°F) Hardener (Part B): 18 months at 24°C (75°F)

Storage Temperature & Humidity Store indoors in a cool, dry, well-ventilated area at temperatures between 4 - 35°C (39 - 95°F). Keep in a tightly sealed container when not in use.

Flash Point (Setaflash)

Base (Part A): 27°C (81°F) Hardener (Part B): 31°C (88°F)

Storage

Store Indoors.

Standard Packaging Sizes:

**Packaging** 

8 Liter Kits: Part A: 4 liters Part B: 4 liters



# **SP-2884**

# PRODUCT DATA SHEET

#### WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.