

High performance aromatic polyurethane coating 100% solids. Excellent anticorrosive protection for buried and submerged steel surfaces. Certified for contact with potable water or food.

Description

Protecfull SFP 108 is a two component solvent-free polyurethane coating designed for anticorrosive protection in buried and submerged tanks, pipes and fittings. It allows a fast handling and provides very high durability.

Protecfull SFP 108 delivers a perfect choice for inside and outside surface protection using a single product due to the excellent physicochemical properties and the certified approvals for direct contact with potable water, oils, juices and alcoholic beverages.

Properties

- Excellent compatibility and resistance to cathodic disbondment.
- Strong anticorrosive protection.
- Outstanding adhesion to unprimed steel.
- Low overspray index.
- High abrasion and impact resistance.
- Very high hardness.
- Good chemical resistance.
- Fast curing and handling (high productivity and throughput)
- High thickness with only one layer.
- Compatibility and direct adhesion on other systems: PE, FBE o Epoxies.

Recommended uses

High performance product for the protection of buried and submerged steel and ductil iron structures (inside and outside). Can be applied on concrete surfaces.

- Exterior protection for steel pipes transporting gas, oil or water (< 80°C).
- Interior protection for steel pipes transporting drinking water.
- Whole steel pipeline protection with just ONE product for drinking water transportation: inside, outside and welded joints (See Kit Repair System).
- Tanks and vessels containing potable water, oils, juices and alcoholic beverages (< 20%).
- Buried containers, retention tanks, etc
- Pipe fittings, valves, etc.

Certifications

- UNE-EN 10290:2003
- ANSI/AWWA C 222-08
- Reglamentation UE Nº 10/2011
- Royal Decree 847/2011
- Royal Decree 140/2003
- NSF/ANSI Standard 61 (23°C and 60 °C)
- NSF/ANSI Standard 372
- EPAL-Empresa Portuguesa das Águas Livres, SA



Technical information - Protecfull SFP 108

View Technical Bulletin. 009.Ed.03-14: Protecfull Kit Repair.

Basic Characteristics

The following info was determined at 23°C and 60%:

Color:	Blue (aprox. RAL 5022) White (aprox. RAL 9010)
Finish:	Gloss
Volume solids:	100%
Density:	1.40 ± 0.05 g/ml
Recommended dry thickness:	Min. 500 µm Max. 1500 µm
Theoretical coverage:	2.00 m ² / l (500 µm) 0.70 m ² / l (1500 µm)
Touch dry:	10 min
Dry to handle (500 µm):	4 hours
Dry to handle (1200 µm):	8 hours
Pot Life:	25 ± 5 seconds at 60 °C
Temperature resistance:	Min. - 30 °C Max. + 80 °C (peaks up to 100°C)
Hardness Shore D (ASTM D2240):	79 Shore D
Tensile adhesion (ASTM D4541)	18-22 MPa (hydraulic system)
Cathodic disbondment (ASTM G95; 28d a 23°C):	0 ± 0,2 mm
Abrasion resistance (ASTM D4060):	OK (< 100 mg lost)
Flexibility (ASTM D522):	OK (77 mm; 180°)
Dielectric strength (ASTM D149):	> 590 V/mil
Impact resistance (ASTM G14):	OK (> 8'5 Nm)
Water absorption (ASTM D570):	0.16-0.19 %

Drying and curing times

Temperature (°C)	23 °C	60 °C	80 °C
Touch dry ⁽¹⁾	10 min	2 min	< 1 min
Dry to handle ⁽²⁾	4 h	20 min	< 1 min
Fully Cured ⁽³⁾	7 days	12 h	2 h
Pot Life	3 min	25 sec	< 5 sec

⁽¹⁾ If applied under optimum application conditions, and once the film is below 35°C.

⁽²⁾ Handling and stackable.

⁽³⁾ Minimum time requested for immersion service.

High performance aromatic polyurethane coating 100% solids. Excellent anticorrosive protection for buried and submerged steel surfaces. Certified for contact with potable water or food.

Surface preparation

Surface must be dry, clean and free from dust, oil and other pollutants.

Steel surfaces: abrasive blaste to a Near White Blast (Sa 2 ½ , SSPC-SP10; NACE 2) with a surface roughness equivalent to Rugotest N°3, BN11-BN10A or Rz 60 to 100 µm profile according to Keane Tator comparator or similar, obtained with the adequate form and granularity abrasive to reach the required profile.

Concrete surfaces: abrasive blasting to remove laitance.

Application directions

Protectfull SFP 108 must be applied using a twin feed hot airless spray equipment. Using a fixed or variable metering system is also possible. The manufacturer of the system must guarantee dosage accuracy with a maximum deviation of ±4 % of the component B for a fixed A rate. An automatic pressure control unit and a control system are strongly recommended to check deviations by measuring the unit's gravimetric ratio.

Volume mixing ratio: 75 % Base
25 % Hardener

Application pressure: 150-180 bars

Pot-Life: approx. 25 seconds at 60°C

Solvent: None

Cleaning solvent: VD-750

Application: Hot airless spray application at 60°C.

Application conditions

- Substrate temperature must be above - 10 ° C (free from ice) and below 50 °C. The substrate must be at least 3°C above the dew point to avoid condensation.
- Room temperature: between 5 and 45 °C.
- Application average temperature: 40-60 °C for the Base, and 20-40 °C for the Hardener.
- Relative humidity must be < 85%.

Optimum application conditions.

- T^a substrate: 20-30 °C
- T^a room: 20-30 °C
- T^a Base: 55-60 °C
- T^a Hardener: 30-35 °C
- RH: 0-50 %

- Minimum recoating time: 4-5 minutes at 23 °C, although it depends on temperature, ambient conditions and film thickness.
- Maximum recoating time: 3 days at 23 °C. If exceeded, roughness should be applied by sweep blasting.
- All instruments should be cleaned immediately after use with VD-750.

Remarks

- **Protectfull SFP 108** is designed as a coating for buried surfaces. Exposure to atmospheric environment for long periods will cause discoloration or dust formation on the surface. This phenomenon is typical of such aromatic coatings which are exposed under the direct action of UV rays, and will primarily concern the aesthetic appearance. If 6-8 weeks of exposure is exceeded, it is advisable to keep under cover or protect the surfaces with canvases.
- For continuous atmospheric exposure, overcoating with an aliphatic polyurethane is recommended as long as the surface is clean and dry (sweep blasting is advisable to obtain a better adhesion).
- Holiday test can be performed after 2 hours although total curing time is 7 days at room temperature. Apply from 6 to 8 Volts per micron and a maximum tension of 10000 V per 1000 dry microns. Performing the test once the film is below 35°C is strongly recommended.
- Maximum curing temperature by heating up is about 60 °C.
- Avoid exposure to rain or high humidity before coating is fully cured in order to avoid surface defects on the film.
- Recoating window depends on room and substrate temperature, equipment temperature setting and thickness layer.
- Protectfull SFP 108 is suitable for immersion in seawater.

Health and safety

Although **Protectfull SFP 108** is a 100% solids product, if expected to be used at high temperatures, irritable vapors can be emitted. Avoid inhalation of spray mist and ensure continuous ventilation and adequate PPE's are used.

In case of contact with the skin, the affected area must be immediately washed with non alkaline cleaners or warm soap. Clean and rinse several times with soap and water.

Complete information can be found on MSDS: www.pinvisacoatings.com

Packaging and storage

Packaging options	Component A	Component B
832 liters pack	3 - 208 liter drums	1 - 208 liter drums
80 liters pack	3 - 20 liter cans	1 - 20 liter cans
1 liter repair Kit	1 - 0,75 liter cartridge	1 - 0,25 liter cartridge

Storage 12 months in the original closed packs in a controlled storage between 5 and 35°C and far from heat sources. Storing Component B at low temperature is not recommended because it may lead to some crystallization; this material must therefore be protected from frost. Otherwise, the material should be melted by warming up to 25°C in an oven or by oil bath (do not use water as component B is sensitive to moisture) in order to redissolve the crystals. Storage at temperatures above 50°C is not recommended, since this can lead to the formation of insoluble solids and also the viscosity build-up increases on extended storage.

After 12 months the use of the product is not recommended. Ask for a possible inspection in our plant.

Last update: July 2018