

**Polyamide epoxy primer with zinc phosphate. Lead and Chromates free.
Provides excellent anticorrosive protection and adhesion to several metal substrates.**

271: UNE 48271 Standard.

Description

EP11 is a solvent based two component epoxy primer with high Zinc Phosphate content. It can be used as low thickness primer coat for long term anticorrosive systems for all atmospheric conditions.

EP11 is designed as multisubstrate primer and can be overcoated with a wide variety of intermediate and top coats, including intumescent systems.

Properties

- Provides an excellent anticorrosive protection.
- Good chemical resistance against mild corrosive and chemical environments.
- Universal primer suitable for a variety of substrates: steel, galvanized steel, stainless steel, aluminium, copper and light alloys.
- Can be overcoated with alkyds, epoxies, chlorinated rubber and polyurethanes.
- Suitable as tiecoat over zinc silicates (previous thinning is recommended).
- Short drying times.
- Long term overcoating.

Recommended uses

- Anticorrosive primer over metallic substrates under aggressive environments up to C5 (ISO 12944). Suitable when a zinc rich primer is not recommended (very acid or alkaline environments).
- Industrial environments: pipes, tanks, chemical industries, thermal power plants, waste treatment plants, etc.
- Marine environments: decks, exposed areas, off-shore platforms, harbor and loading areas.
- As anticorrosive fireproof primer for intumescent systems.
- As tie-coat over zinc silicate or galvanized steel.
- Suitable as a primer for immersion systems.
- For workshop, new construction and maintenance works.

Certifications

- Certified **UNE 48271: Tipo I y II**. Epoxy anticorrosive primer, lead and chromate free.
- Specification **SSPC Paint-22**: "Epoxy Polyamide Coating"
- Certified according to **UNE -EN 13501-1: 2007** regulation: reaction to fire euro classification **B-s2, d0**; equivalent to the previous M1 (UNE 23727: 1990).

Basic characteristics

Data at 23 °C and 60% RH:

Colour:	White, Grey, Red Oxide, Green.
Finish:	Satin
Volume Solids:	52%± 2%
Specific weight:	1.35 ± 0.05 g/ml
Recommended dry thickness	Minimum: 40 µm (80 wet microns) Maximum: 80 µm (160 wet microns)
Theoretical coverage:	12.5 m ² / l (40 µm) 6.25 m ² / l (80 µm)
Dry to touch (40 µm):	1 hour
Total dry (40 µm):	3 hours
Pot-life	8 hours
Minimum recoating time:	4 hours
Maximum recoating time	Unlimited
VOC's	480 g/l
Dry temperature resistance (ASTM D 2485):	100 °C (continuous)

Drying and minimum recoating times (40 dry microns)

Temperature *	10 °C	20 °C	30 °C	40 °C
Dry to touch	3 h	1 h	30 m	15 m
Total dry	8 h	3 h	2 h	1 h
Curing time	14 d	7 d	5 d	3 d
Recoating	8 h	4 h	2 h	1 h

d: days; h: hours; m: minutes;
* Referred to the substrate temperature.

Pot-life

Temperature *	10 °C	20 °C	30 °C	40 °C
Pot-life	18 h	8 h	4 h	2 h

* Referred to the ambient temperature.

Additional technical information

Technical Bulletin 010.Ed.05-15: Anticorrosive protection systems.

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Surface preparation

All surfaces must be dry, clean, and free from salts, oils and pollutants (ISO 8504 y SSPC-SP1).

- Steel: abrasive blast to Sa 3 or Sa 2½ (ISO 8501/1 ó SSPC SP-10) with a surface roughness Rz > 30 microns, obtained with the adequate form and granularity abrasive to reach the profile required.
- Galvanized steel: proper surface free from Zn salts. Sweep blasting with fine abrasive is recommended (ISO 8504).
- Aluminium: proper surface free from oil and pollutants. Sweep blasting with fine abrasive is recommended (ISO 8504).
- Zinc silicate shop primer: the surface must be clean, dry and free from salts, dust, oil, and other pollutants. The application of a very thinner tie-coat is recommended.

Once the surface is ready the product must be applied as soon as possible in order to avoid the substrate corrosion or pollution. If it is needed, perform the corresponding localized blasting.

Application directions

EP11-PV. Epoxy Primer 271 is supplied as two cans set that must be completely mixed for the application.

- Homogenize the Base (component A) with mechanical stirring ensuring that there are no remains of pigments in the bottom. Add all the Hardener (component B) to the base, and mix mechanically until a uniform product is obtained.
- Respect the induction time, 10 minutes.
- Adjust viscosity, if needed, only with the recommended thinners. A thinner excess can cause sagging, so it is recommended to keep the product above 15°C.
- It must be ensured that continuous ventilation and the correct EPI's are used during the application. For indoor application, proper ventilation is recommended in order to facilitate curing and solvent evaporation.
- Wash all equipment immediately after application with the cleaning solvent. Do not allow material to remain in hoses, gun or spray equipment.

Mixing ratio (volume):	80% Base 20% Hardener
Induction time	10 minutes
Pot-Life	8 hours
Thinner	VD-300 or VD-400
Cleaning solvent	VD-511
Airless	Thinner: 0-10 % volume Nozzle diameter: 0.015" - 0.017" Nozzle pressure: 150-200 bars
Air spray	Thinner: 5-15% volume Nozzle diameter: 0.055" - 0.065" Nozzle pressure: 3-4 bars
Brush/Roller	Touch and repairs.

Application conditions

- Substrate temperature must be between 10°C and 40°C, and always 3°C above the dew point.
- Relative humidity must be below 80%.
- Avoid exposure to rain before it is fully cured in order to prevent from surface defects on the film.

Remarks

- To obtain the maximum thickness (80 microns), the application with airless and without thinning is recommended.
- If applied by brush or roller, several coats may be required to achieve the thickness desired.
- Drying and overcoating times will be longer when film thickness is higher than recommended or if ventilation and air movement are restricted and temperatures are lower.
- The application of higher thickness than recommended can cause a loss of film adherence, especially when it is overcoated with high building products.
- The adhesion over aluminium and galvanized steel depends on the alloy and galvanized type, a previous verification is recommended.
- For weathered galvanized steel, remove soluble Zn salts with high pressure water. Sweep blasting with non-metallic abrasive is advisable.
- The theoretical spreading rate can change in function of several factors: application method, surface roughness, losses during mixing and application, excessive dilution. An extra coat is recommended in welds, edges and sharp edges to enhance protection.
- For immersion conditions, recoat with recommended products.

Safety precautions

Safety labels of the packaging containing information necessary for proper handling. It is important to meet the requirements of the legislation. As a general rule, inhalation of solvent vapours and paint mist should be avoided, as well as contact of liquid paint with skin and eyes. When paint is applied in enclosed spaces forced ventilation should be provided, accompanied by the appropriate respiratory protection, skin and eyes, especially when applied with spray.

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

Packaging and storage

Sets of 20 l: 16 l of base in 20 l can; 4 l of hardener.

Sets of 5 l: 4 l of base in 5 l can; 1 l of hardener

Store indoors between 5 and 35°C during 12 months (unopened).

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