

W-POXI ENG 138

PRODUCT DESCRIPTION

Fast-curing polyamine epoxy primer, intermediate and finish coat, with high solids by volume and high film thickness, containing anticorrosive pigments. Provides excellent protection against corrosion, abrasion and chemical resistance in various aggressive environments.

RECOMMENDED USE

Ships, marine and offshore structures: ballast and fuel tanks, decks, oil and natural gas exploration platforms, onboard machinery, pipelines, etc.

CERTIFICATIONS AND APPROVALS

When supplied to comply with the ROHS Directive (Restriction of Certain Hazardous Substances), this product includes the letter R in its nomenclature description.

PACKAGING

Component A	3.6L Package containing 3.6L 20L Package containing 20L
Component B	3.6L Package containing 3.6L 20L Package containing 20L

CHARACTERISTICS

Color	RAL, Munsell, or according to the customer's standard.
Gloss	Gloss
VOC content	289.97 g/l
Volume Solids	80 ± 3% (ISO 3233)
Shelf Life	24 months
Dry Film Thickness	150 µm - 300 µm
Dry Heat Resistance	Maximum temperature 120 °C. The product maintains its chemical properties up to a temperature of 120 °C, but from 60°C, color and gloss variations in the paint may occur.
Theoretical Coverage	3,56 m ² /l without dilution at a dry film thickness of 225 µm. Loss factors during application are not considered.

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	2 hours	1 hour	45 min
Manipulation	10 hours	4 hours	3 hours
Final	168 hours	168 hours	168 hours

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	10 hours	4 hours	3 hours
Maximum	36 hours	48 hours	24 hours

SURFACE PREPARATION

Standard Surface Preparation

The surface must be clean, dry, and free of contaminants. Completely remove oils, greases, and fats according to SSPC-SP1.

Remove accumulated dirt using a dry brush, clean dry cloth, compressed air blow, vacuum, or a combination of these. Remove soluble salts by washing with plenty of fresh water, preferably under low pressure (up to 5,000 psi), according to SSPC-SP12/NACE No. 5 standard.

Recommended Surface Profile

It is recommended a roughness profile between 50 and 75 micrometers.



Abrasive Blasting

Perform abrasive blasting to near-white metal, Sa 2½ grade, according to ISO 8501-1 visual standard (A Sa 2½, B Sa 2½, C Sa 2½, D Sa 2½), or according to SSPC-SP10/NACE No. 2, visual standard SSPC-VIS 1 (A SP10, B SP10, C SP10, D SP10, G1 SP10, G2 SP10, G3 SP10).

Inspect the freshly blasted surface, observing defects that may appear after treatment. Correct them by grinding, filling with welds and/or epoxy putty.

For areas near marine environments, wash with fresh water at low pressure (minimum 3,000 psi) before abrasive blasting. In some cases, repeat washing after blasting to remove soluble contaminants and perform a new abrasive blasting.

If oxidation occurs between the end of abrasive blasting and coating application, the surface must be blasted again until the specified visual standard is achieved.

Hand and Power Tool Cleaning

Perform manual mechanical cleaning for carbon steel surfaces with oxidation grades C or D, according to SSPC-VIS 3 visual standards. For previously painted surfaces with grades E, F, or G, follow SSPC-VIS 3.

If manual mechanical cleaning is not possible, alternatively perform near-white metal abrasive blasting, Sa 2½ grade according to ISO 8501-1 visual standard (C Sa 2½ and D Sa 2½) or SSPC-SP 10/NACE No. 2, visual standard SSPC-VIS 1 (C SP 10, D SP 10).

Carbon Steel Surfaces

Hard surface layers (e.g., layers resulting from flame cutting) must be removed by grinding before starting abrasive blasting.

All welds must be inspected and, if necessary, repaired before completing abrasive blasting. Porosities, cavities, weld splatter, etc., must be repaired with proper mechanical treatment or welding repair. In other areas, round edges and sharp corners (r # 2 mm, ISO 8501-3).

APPLICATION PREPARATION

Mixing	Homogenize the content of each component using mechanical or pneumatic stirring (A and B). Ensure no sediment remains at the bottom of the container. Add component B to component A in the indicated mixing ratio under stirring until completely homogenized, respecting the mixing ratio.
Mixing Ratio	By volume: 1 A x 1 B.
Thinner	EPOXY DILUENT 3005
Dilution	Depending on the application method, dilute to a maximum of 10%.
Notes	The amount of Diluent may vary depending on the type of equipment used and environmental conditions during application. Only add Diluent after complete mixing of the other components. Do not dilute with solvents not allowed by local legislation, and do not exceed the indicated dilution percentage. Excessive dilution may affect film formation, appearance, and make it difficult to achieve the specified thickness.
Pot Life	1 h The shelf life of the mixture is reduced as the ambient temperature increases. The pot-life test of the mixture is carried out according to ABNT NBR 15742; however, different volumes of paint prepared at once, combined with varying ambient and paint temperatures, will affect the mixture's shelf life, potentially resulting in outcomes different from those stated in this technical bulletin.
Induction Time	No induction time required. In very hot locations, we recommend consulting WEG's

Technical Department.

APPLICATION METHODS

Airless Spray Gun

Airless: Use minimum pump 60:1
Fluid pressure: 2500 - 3500 psi
Hose: 3/8" inner diameter
Nozzle: 0.017" - 0.025".

Roller

Use a short-haired, seamless wool or synthetic roller for epoxy paints.
Recommended only for small areas or touch-ups. Use a low-pile seamless wool roller or synthetic roller for epoxy paints.
Not recommended for internal tank painting.
For application with brush and/or roller, it may be necessary to apply two or more coats to achieve a uniform layer and the recommended film thickness.

Brush

Recommended only for small area touch-ups or "stripe coat" (screws, nuts, weld beads, sharp corners, and touch-ups).

Cleaning of the equipments:

EPOXY DILUENT 3005

Notes

The data presented serves as a guide and similar equipment may be used.
Changes in pressures and nozzle sizes may be necessary to improve spraying characteristics. Purge the compressed air line to avoid paint contamination.
Do not allow catalyzed product to remain in contact with application equipment, as at temperatures above the indicated "pot life", the paint will show variation in flow and will harden, making cleaning difficult.
Before application, ensure that the equipment and respective components are clean and in optimal condition.
After mixing two-component products, if there are application stops and the pot life has been exceeded (paint shows variation in flow), it can no longer be re-thinned for later application.
In spray application, overlap each gun pass by 50%, finishing with a cross pass. This technique avoids uncovered or unprotected areas and ensures proper aesthetic finish.
Reinforce all sharp corners, gaps, and weld beads with a brush to avoid premature failures in these areas.
Clean all equipment immediately after use.
It is considered good practice to periodically wash the spraying equipment during the day. The cleaning frequency depends on the amount sprayed, temperature, and elapsed time, including all delays.

APPLICATION PERFORMANCE

Even when chalking occurs, the film is not impaired in terms of protection. On freshly painted surfaces in direct contact with water during the curing process, localized staining with color change (more visible in darker colors), curing delay, and compromised product performance may occur.

For coatings applied in coastal areas exposed to sea spray, it is recommended to wash with fresh water between coats to remove deposited impurities.

Light colors may require more than one coat to achieve uniform coverage.

Do not apply the product after the pot life has been exceeded.

During curing, if the applied parts are exposed to low temperatures and/or high humidity, exudation may occur on the film, which should be removed with fresh water or cloth moistened with appropriate Diluent. This does not affect the quality or corrosion resistance of the film.

Before application, observe weather conditions: there must be no threat of rain or drizzle. Surface temperature must be at least 3°C above the dew point, and relative humidity should not exceed 85%. Adverse conditions may cause color variations and other characteristics. Consult WEG Technical Department.

Surface preparation is recommended to Sa 2½ or SSPC SP10 (ISO 8501-1 visual standard). Less stringent standards are acceptable as long as there are no contaminants, supplemented with



high-pressure water cleaning.

Exposure of the coating film to temperatures above 120°C may compromise the product's performance regarding adhesion and chemical resistance.

Painting is recommended only if the surface temperature is at least 3°C above the dew point and maximum temperature of 52°C.

Regardless of the preparation type, the product's moisture tolerance allows surface washing with fresh water immediately before painting, minimizing salt content.

Epoxy-based products are well known for their excellent corrosion-resistant properties, although they have limited resistance to sunlight. When the applied coating is exposed to weathering, it may gradually lose its gloss, a phenomenon known as chalking, which can also cause a slight change in color. It is important to note that this chalking does not compromise the coating's corrosion protection.

Paintings performed with varying application methods on the same project may result in differences in gloss and final appearance.

On freshly painted surfaces in direct contact with water during the curing process, localized staining with color change (more visible in darker colors), curing delay, and compromised product performance may occur.

Small variations in color, appearance, and gloss (more noticeable in dark colors), as well as delayed curing and performance compromise, may occur during high humidity, rainy days, cold locations, or when parts dry outdoors.

Epoxy-based products are known for their excellent anticorrosive properties and low resistance to sun exposure. When the applied film is exposed to weathering, over time it will lose gloss, a phenomenon known as chalking, which consequently alters its color. It is important to note that, despite this chalking, the film's anticorrosive protection is not compromised.

SAFETY PRECAUTIONS

Product developed for industrial use intended for handling by qualified professionals. Carefully read all information contained in the SDS of this product, available at: www.weg.net.

Store in a covered and well-ventilated place. Keep the container tightly closed and away from sources of heat or ignition.

Use only in well-ventilated areas, avoiding the accumulation of flammable vapors. Keep the product away from heat and sources of ignition.

Do not inhale mists/vapors/aerosols generated during handling and/or application. Use protective gloves/protective clothing/eye protection/face protection.

Empty containers and materials with paint residues must be disposed of according to current legislation. Take care of the environment.

NOTE

The information contained in this technical bulletin is based on the experience and knowledge acquired in the field by WEG's technical team.

In the event of using the product without prior consultation with WEG regarding its suitability for the purpose for which the customer intends to use it, the customer acknowledges that the use will be at their own exclusive responsibility, and WEG is not liable for the behavior, safety, suitability, or durability of the product.

Some information mentioned in this bulletin is only an estimate and may vary due to factors beyond the manufacturer's control. Therefore, WEG does not guarantee and assumes no responsibility for performance, efficiency, or any material or personal damages resulting from the incorrect use of the products in question or from the information contained in this Technical Bulletin.

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