



W-POXI ENG 102

PRODUCT DESCRIPTION

Two-component polyamine epoxy primer/finish, high solids, high-build, with aluminum-based anticorrosive pigmentation, providing superior barrier corrosion protection. Tolerant to surfaces: applicable on dry/wet blasted, hydroblasted, or manually/mechanically treated steel substrates. Can be used as a system converter. Offers excellent anticorrosive protection in aggressive environments.

RECOMMENDED USE

The product is designed for protection of steel and concrete (under specific primer) in industrial and marine environments, such as vessels, maritime and offshore structures, ballast tanks, decks, oil exploration platforms, onboard machinery and equipment. Industrial applications include chemical and petrochemical plants, pulp and paper mills, mining, power plants and hydroelectric plants, sugar and ethanol plants, water treatment plants, interior painting of steel and concrete (under specific primer) for potable water storage, bridges, metal structures, and various machinery and equipment. Can be applied both inside and outside pipes.

CERTIFICATIONS AND APPROVALS

Pre-qualified according to NORSOK M-501, Edition 6, System 1.

This product complies with Mexican Official Standard NOM-050-SCFI-2004 and NOM-003-SSA1-2018.

Certified in category C5H of ISO 12944:2018 when applied at 9.45 mil with polyurethane finish at 2.36 mil.

This product is certified as part of an approved paint scheme in accordance with the MED Directive 2014/90/EU, in compliance with IMO Resolution MSC 307 (88) - Annex 1 - Parts 2 and 5 tests.

Certified for anticorrosive protection by RMRS according to item 6.5, Part XIII of Rules for the Classification and Construction of Sea-Going Ships (13363000 and 13361100).

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

This product complies with Ministry of Health Ordinance GM/MS No. 888, dated May 4, 2021.

Complies with Ministry of Health Ordinance No. 2914 regarding drinking water.

Part of the scheme also complies with Russian Maritime Register of Shipping (RMRS) requirements for low flame spread.

PACKAGING

Component A	0.95 US gal Package containing 0.81 US gal 5.28 US gal Package containing 4.53 US gal
Component B	0.24 US gal Package containing 0.14 US gal 1.06 US gal Package containing 0.75 US gal

CHARACTERISTICS

Color	RAL, Munsell, or according to the customer's standard.
Gloss	Semi-Matte
Volume Solids	70 ± 2% (ISO 3233)
Shelf Life	24 months
Dry Film Thickness	5.9 mils - 11.8 mils
Dry Heat Resistance	Maximum temperature 248 °F. The product maintains its chemical properties up to a temperature of 248 °F, but from 140°F, color and gloss variations in the paint may occur.
Theoretical Coverage	126.7 ft ² /gal without dilution at a dry film thickness of 8.9 mils. Loss factors during application are not considered.



DRYING

Drying

	41 °F	50 °F	77 °F	95 °F
Touch	9 hours	6 hours	3 hours	2 hours
Manipulation	36 hours	24 hours	8 hours	6 hours
Final	336 hours	240 hours	168 hours	144 hours

Recoat Drying

	41 °F	50 °F	77 °F	95 °F
Minimum	36 hours	24 hours	8 hours	6 hours
Maximum	30 days	21 days	15 days	7 days

SURFACE PREPARATION

Standard Surface Preparation

The performance of this product is related to the degree of surface preparation. In case of doubts, for more information, consult WEG's Technical Department.

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 1.57 and 2.76 mils.

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.

Water Jetting

Application of this product is allowed on hydroblasted surfaces showing moderate flash rust, WJ-2M, according to SSPC-VIS 4/NACE VIS 7 visual standard.

It is recommended to paint on hydroblasted surfaces to CWJ-2 grade according to SSPC-VIS 4. The product can be applied on surfaces with light flash rust, grade CWJ-2L.

NOTE 1: Ultra-high-pressure hydroblasting can remove oils and greases from the surface; however, this does not replace prior degreasing.

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 commercial abrasive blasting, Sa 2 grade according to ISO 8501-1 visual standard (C Sa 2 and D Sa 2) or SSPC-SP 6/NACE No. 3, visual standard SSPC-VIS 1 (C SP 6, D SP 6).

Mechanically treat the surface until achieving at least St 3 grade according to ISO 8501-1 visual standard or SSPC-SP 11, using SSPC-VIS 3 visual standard as guidance.

Maintenance and Repair

When the aged coating shows good adhesion, perform light sanding to break gloss, followed by dust and residue cleaning to ensure better adhesion between coats.



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 e 0.0787 in, ISO 8501-3).

Over Primer

NOTE: Respect the product's recoat interval for the application of the subsequent coat. If the maximum indicated recoat interval is exceeded, it is necessary to perform a light manual or mechanical sanding to break the gloss of the previous coat, followed by cleaning off dust and sanding residues to ensure better adhesion between paint coats.

Over Aged Coating

It is acceptable to adopt less stringent preparation standards as long as contaminant absence is ensured via high-pressure fresh water cleaning (5,000-10,000 psi) according to SSPC-SP12/NACE No.5. In case of doubt, consult the technical area.

Remove all contaminants from the existing paint. Areas where the film is not adhered must be removed with light blasting grade Sa 1 (brush off) or according to SSPC-SP7, ISO 8501-1 visual standard. Corrosion points, worn, or damaged areas must be prepared by commercial abrasive blasting grade Sa 2, ISO 8501-1 standard or SSPC-SP6/NACE No.3, SSPC-VIS 1 standard. If not possible, use rotary-mechanical tools according to SSPC-SP 11.

For intact and well-preserved Inorganic Zinc Silicate Shop Primers, prepare only with a nylon brush or low-pressure fresh water washing (up to 5,000 psi), according to SSPC-SP12/NACE No.5.

For Epoxy Iron Oxide Shop Primers, ensure primer is intact, clean, and dry. If the maximum recoat interval is exceeded, perform manual/mechanical sanding to break gloss and ensure adhesion between layers.

New Constructions

When aged paint shows good adhesion to the substrate, superficial sanding is recommended to break gloss, followed by dust and residue cleaning to improve intercoat adhesion.

It is recommended to test the paint on a small area to verify compatibility and ensure that the aged original coating is still well adhered to the substrate. Poorly adhered paints must be fully removed. Repainting must be done only on well-preserved surfaces.

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: 6 A x 1 B.
Thinner	EPOXY DILUENT 3005
Alternative Thinners	Epoxy Diluent 3005 - For temperatures below 77°F. Epoxy Diluent 3014 - For temperatures above 95°F. Epoxy Thinner 3005 - For temperatures between 77-95°F. Epoxy Thinner 3014 - For temperatures between 77-95°F.
Dilution	Depending on the application method, dilute to a maximum of 10%.
Notes	No dilution is required. Product ready to use. If necessary, consult the WEG Technical Department.
Pot Life	4 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

Conventional Spray Gun

Spray gun: JGA 502/3 Devilbiss or equivalent
 Fluid nozzle: EX
 Air cap: 704
 Atomization pressure: 50 - 70 psi
 Tank pressure: 10 - 20 psi.

Airless Spray Gun

Airless: Use minimum pump 60:1
 Fluid pressure: 2000 - 3000 psi
 Hose: 1/4" inner diameter
 Nozzle: 0.017" - 0.025".

Roller

Use wool or synthetic rollers.

Brush

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

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

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.

Not recommended for highly alkaline and/or acidic corrosive environments. Consult WEG Technical Department.

As this is a primer, color variation between batches of this material may occur.

For optimal application properties, the paint temperature must be between 69.8°F - 80.6°F before



mixing and application.

Before application, observe weather conditions: there must be no threat of rain or drizzle. Surface temperature must be at least 37,4°F above the dew point, and relative humidity should not exceed 85%. Adverse conditions may cause color variations and other characteristics. Consult WEG Technical Department.

We recommend painting only if the measured surface temperature is at least 5.4°F above the dew point.

Substrate temperature, climatic and environmental conditions during application and curing, as well as applied film thickness, may affect drying time.

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.

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.

Under adverse weather conditions in indoor and/or outdoor environments with high relative humidity, rain or drizzle, low or very low temperatures, and excessively high temperatures, variations in color and other product characteristics may occur. Please consult WEG's Technical Department for more information.

SYSTEM COMPATIBILITY AND MAINTENANCE REPAINTING

In situations where the nature of the primer is unknown, it is recommended to test the product's compatibility on a small area; it must be ensured that the original material is well adhered. All non-adhered paint must be removed; areas with corrosion or applications over aged paints must be treated according to technical guidance.

The product may be applied over aged paints or other coating systems; however, it is advisable to test the product's contact with the previous paint on a small test area. We recommend dulling the surface with sanding for better performance; it must be ensured that the original material is well adhered. All non-adhered paint must be removed; areas with corrosion or applications over aged paints must be treated according to technical guidance.

If no topcoat is applied over the product, two coats of this product may be applied at the appropriate thickness.

For topcoat application over the product, the repainting interval must be respected; the surface must be dry and free of contaminants.

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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