TECHNICAL DATA SHEET

W-POXI GFD 40

PRODUCT DESCRIPTION

Two-component Novolac epoxy primer/finish with high solids content and high-build. Very low volatile organic compounds (Low VOC). Formulated with glass flakes providing excellent barrier protection. W-POXI GFD 402 provides unmatched anticorrosive protection, excellent surface hardness, and impermeability.

RECOMMENDED USE

Specially developed for application on oil tanks, formation water tanks, crude oil tanks, fuel oils, light products (fuels and solvents), ballast tanks, ships in general, and maritime structures. In offshore environments, can be used on decks, oil and natural gas exploration platforms, onboard machinery, pipelines, etc. Also indicated for industrial applications such as chemical and pulp industries, bridges, aerial or submerged metal structures (upon consultation), and various machinery. Also developed for application in containment areas, dikes, and concrete pits in chemical, pulp, and petrochemical industries. Resistant to a wide range of solvents, oils, and acids (except hydrofluoric acid), also resistant to 98% sulfuric acid.

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	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	According to customer standard. RAL and Munsell chart.
Gloss	Semi-Gloss
VOC content	1.0 (lb/gal). Note: The average of VOC on the line can vary depending on the color.
Volume Solids	96 ± 1% (ISO 3233)
Shelf Life	24 months
Dry Film Thickness	15.7 mils - 31.5 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	65.2 ft²/gal without dilution at a dry film thickness of 23.6 mils. Loss factors during application are not considered.

DRYING

Drying

	50 °F	77 °F	95 °F
Touch	14 hours	6 hours	4 hours
Manipulation	30 hours	16 hours	8 hours
Final	288 hours	288 hours	240 hours
Pot life	90 min	35 min	20 min

Recoat Drying

	50 °F	77 °F	95 °F
Minimum	10 hours	6 hours	3 hours
Maximum	30 hours	24 hours	20 hours

SURFACE PREPARATION

Reviewed on April 02th, 2026

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.

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.

The maximum level of soluble impurities on the blasted surface, as per the test described in ISO 8502-6 and using distilled water, must not exceed a conductivity measured according to ISO 8502-9 corresponding to a maximum of 20 mg/cm² (2 ¼g/cm²) inimmersed, buried, or submerged areas.

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).

The manual mechanical cleaning process is recommended only for small areas.

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.

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).

Concrete Surfaces

No coating or paint should be applied until the concrete (or cement-sand screed) is fully dry and cured for at least 28 days under normal climatic conditions.

For more information, consult the Concrete Surface Preparation and Application Manual.

This product must be applied over a recommended sealer or primer for concrete surfaces to compose an appropriate painting system. For correct application of the sealer/primer, consult its technical bulletin.

Coatings should not be applied over floors contaminated with oils or aggressive products. The floor must be effectively cleaned. Applying over residues of these contaminants may cause coating detachment and other failures.

Respect the recoat interval between sealer or primer coats for applying the product. If the recoat time is exceeded, sand as described in the sealer or primer technical bulletin.

Coating on old concrete only upon recommendation from WEG Technical Department.

Product application must follow guidance from our technical department to achieve the expected performance. Factors such as surface condition, roughness, contaminant level, and other specifics

are essential for proper surface preparation.

Over Primer
Respect the product recoat interval. If exceeded, perform light manual/mechanical sanding to break gloss and clean dust/residues for better adhesion between coats.

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. Avoid prolonged mixing, as frictional heat will significantly reduce the product#s shelflife.
Mixing Ratio	By volume: 6 A x 1 B.
Thinner	EPOXY DILUENT 3012
Dilution	Depending on the application method, dilute to a maximum of 5%.
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	35 min 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 70:1 Fluid pressure: 3500 - 4500 psi Hose: The hose from the airless pump to the whip must be a maximum of 49 ft with 1/2#, 0.5 in inner diameter. The whip hose reaching the gun must be 5 ft with 3/8#, 0.4 in inner diameter. Nozzle: 0.031" - 0.035" Note: Because the product contains glass flakes, premature nozzle wear may occur. All filters must be removed. For more information about applying this product with an Airless gun, please check the attachment at the end of this technical bulletin.
Roller	Use a short-haired, seamless wool or synthetic roller for epoxy paints. 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 3012

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

To achieve suitable viscosity for application, ambient temperature during paint storage, mixing, and application should be between 68°F and 86°F.

Due to the product containing glass flakes in its formulation, nozzle wear 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.

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

Do not use excessive air pressure. Properly adjust fluid and nozzle pressure for better atomization.

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.

Due to high viscosity and thixotropy, dispersed bubble entrapment will occur. Volume solids test according to ISO 3233 may show values below 80%; this should not be considered for yield calculations.

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 systems may have longer curing times when exposed to low temperatures.
For curing below 50°F, consult WEG Technical Department.

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#scorrosion 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.

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.

The information contained in this technical bulletin is subject to periodic modifications, without prior notice, due to our policy of continuous improvement and evolution of our products and services, providing quality solutions to meet the needs of our customers.

APPLICATION MANUAL

1. GENERAL RECOMMENDATIONS FOR PAINTING:

1.1. Environmental conditions, surface cleaning, interval between coats: Comply with all characteristics described in the technical data sheet.

1.2. No paint shall be applied if there is an expectation that the ambient temperature may drop to 32 °F before the paint has dried.

1.3. Paint shall not be applied during rain, fog, or mist, or when the relative humidity exceeds 85% (eighty-five percent), nor when such conditions are expected to occur, as this may compromise intercoat adhesion or total adhesion of the applied film.

1.4. Each coat of paint must have a uniform thickness, free from defects such as porosity, wrinkling, blistering, bubbles, craters, or impregnation of other visible contaminants.

1.5. Concrete surfaces must receive appropriate treatment to ensure proper performance of the paint system.

2. GENERAL RECOMMENDATIONS FOR FLOORING:

2.1. To allow the protective system to be applied, the surface must be clean, solid, free from any type of contaminant, completely dry, and sufficiently rough to ensure adhesion of the protective system to be Applied.

2.2. The floor must have a neutral (7) or slightly alkaline (10) pH.

2.3. No coating or paint shall be applied on concrete or subfloors containing curing accelerators unless representative tests indicate satisfactory adhesion of the painting system.

2.4. No coating or paint shall be applied unless the concrete (or mortar subfloor of cement and sand) is completely dry and cured for at least 28 days under normal climatic conditions.

2.5. Coatings shall not be applied on floors contaminated with oils or aggressive products. The floor must be effectively cleaned. If application is performed over contaminant residues, the coating film may detach and exhibit various types of failures and defects.

2.6. The concrete design must include prior waterproofing to prevent rising damp or groundwater from ascending through the concrete capillarity

, which may cause blistering and peeling of the coating.

2.7. Check for moisture presence in concrete according to ASTM D 4263, summarized below:

2.7.1. Attach a plastic sheet measuring 18 x 18 inches (457 mm x 457 mm) using 3M Silver Tape, ensuring all edges are well sealed;

2.7.2. Leave the plastic sheet sealed to the concrete for at least 16 hours;

2.7.3. After this period (between 16-24 hours), remove the plastic sheet and visually inspect both the underside of the sheet and the concrete surface for moisture presence;

2.7.4. Perform one test area sampling per H 495 ft² orproportional area;

2.7.5. Do not perform painting if any residual moisture is detected on the plastic sheets from the samples.

3. GENERAL RECOMMENDATIONS FOR PAINTING OVER AGED COATINGS:

3.1. An analysis must be performed to verify compatibility between the aged coating and the new system to be applied. If incompatible, painting shall not be performed, or all aged coating must be removed. If compatible, sanding (to break gloss and promote adhesion) and surface cleaning shall be performed.

3.2. If detachment of the aged coating occurs (even between compatible systems), scraping and/or full removal of the old coating must be performed. Tools such as steel scrapers, scarifiers, and grinders with G-16 - G-24 stones may be used.

3.3. After scraping, sanding, or any repair, the surface must be free from contaminants and residues.
3.4. Contact the WEG Paints Technical Department to evaluate the need for primer application.

4. PAINT APPLICATION (BASIC RECOMMENDED METHODOLOGY):

4.1. Initial Degreasing:
4.1.1. Thoroughly wet the entire surface with clean water, under high pressure and preferably hot;
4.1.2. Evenly spread a biodegradable detergent solution over the entire area, according to the detergent manufacturer's instructions;
4.1.3.Scrub vigorously using industrial scrubbers, grinders, and/or nylon brushes or stiff brooms
4.1.4. Allow the solution to act for approximately 10 minutes;
4.1.5. Rinse thoroughly with clean water, under high pressure and preferably hot, and allow to dry;
4.1.6. Repeat the degreasing process as many times as necessary. Optionally, milling may be performed on localized areas with heavy oil or acid contamination, followed by the degreasing process described above.
IMPORTANT NOTE: Before beginning application of the painting system described below, the floor must be completely dry and free of moisture. A torch may be used to assist drying, always verifying dryness with the plastic sheet or aluminum foil test (ASTM D 4263). Before painting, concrete moisture content must not exceed 6%.
4.1.7. These technical recommendations aim to achieve the best performance of the painting system.
4.2. Surface Preparation:
4.2.1. Surface preparation shall comply with Standard SSPC SP-13/NACE No. 6, ICRI Technical Guideline No. 03732, and be compared to the visual standards expressed as CSP 1 to 9:

CSP 1 - Acid etching
CSP 2 - Grinding
CSP 3 - Light shotblast
CSP 4 - Light scarification
CSP 5 - Medium shotblast
CSP 6 - Medium scarification
CSP 7 - Heavy abrasive blast
CSP 8 - Scabbled (steel or tungsten inserts)
CSP 9 - Heavy scarification

4.2.2. The type of surface preparation will affect the paint system#s thicknessand, consequently, the material consumption and performance, as shown in the table below:

VISUAL STANDARD (ICRI TECHNICAL GUIDE)

CSP 1 - Acid etching
Profile: 13.5 mils ± 2.5
Approx.: 342.9 micrometers

CSP 2 - Grinding
Profile: 16 mils ± 2.5
Approx.: 406.4 micrometers

CSP 3 - Light shotblast
Profile: 19 mils ± 2.5
Approx.: 482.6 micrometers

CSP 4 - Light scarification
Profile: 25 mils ± 2.5
Approx.: 635.0 micrometers

CSP 5 - Medium shotblast
Profile: 33 mils ± 2.5
Approx.: 838.2 micrometers

CSP 6 - Medium scarification
Profile: 63 mils ± 2.5
Approx.: 1600.2 micrometers

CSP 7 - Heavy abrasive blast
Profile: 87.5 mils ± 5
Approx.: 2222.5 micrometers

CSP 8 - Scabbled (steel or tungsten inserts)
Profile: 105 mils ± 5
Approx.: 2667.0 micrometers

CSP 9 - Heavy scarification
Profile: 107 mils ± 5
Approx.: 2717.8 micrometers

4.2.3. Scarification (Milling):

4.2.3.1. This method is an excellent option for repairing and restoring damaged surfaces, suitable for both light and heavy work. These machines are recommended for cutting anti-slip grooves, removing contaminated concrete layers such as grease, oil, rubber, synthetic pavements, paints, splashes, traffic markings, and other floor surface applications. The milling machine consists of an electric (three-phase or single-phase) or gasoline motor that rotates a drum fitted with tungsten carbide tools that chip and abrade the surface. The depth of removal depends on the type and shape of the discs used.

4.2.4. Manual and Rotary Hammer Grinders:

4.2.4.1. Grinders are intended for surface preparation, leveling, roughening, cleaning, and polishing of floors and coatings. These machines operate with electric motors (three-phase or single-phase) and one or two multipurpose discs (3 stones or diamond inserts per disc). Depending on floor hardness, carborundum or tungsten carbide inserts may be used.

4.2.5. Captive Shot Blasting with Centrifugal Turbines:

4.2.5.1. Another meth

od of preparing concrete, especially floors, involves centrifugal turbines that project steel shot in a closed circuit. The turbine propels the shot against the concrete while a powerful vacuum removes dust and reclaims the abrasive for reuse. This process removes a few inches of concrete.

4.2.6. Acid Treatment: This type of surface treatment requires great care. Acid is only recommended for ground-level floors and walls, provided there is no infiltration risk, as acid attack on reinforcement can compromise structural strength and safety. When opting for this method, follow the steps below:

4.2.6.1. Pre-wet the surface, then apply a 15% hydrochloric acid (muriatic acid) solution in water (1 part commercial muriatic acid to 1 part water by volume). IMPORTANT NOTE: To calculate the required amount of solution, consider that 2.64 gal of muriatic acid solution covers approximately H 161-194 ft².

4.2.6.2. Evenly spread the acid solution on the surface using a nylon or stiff brush, avoiding puddles, and allow it to act until the surface roughness resembles 80-grit sandpaper.

4.2.6.3. Rinse thoroughly with plenty of water to remove all acid residue and achieve near-neutral pH.

4.2.6.4. Apply the first coat of primer or coating once the concrete is dry.

5. GENERAL RECOMMENDATIONS FOR PAINTING NEW FLOORS:

5.1. Follow all instructions in the technical data sheet described in this document, as well as the recommendations above.

5.2. In case of doubts regarding floor performance, do not apply any product and contact the WEG Paints Technical Department.

5.3. For surface preparation and application, it is recommended to hire specialized and qualified companies responsible for product application.

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