TECHNICAL DATA SHEET

WEGPOXI WET SURFACE 88 HT

PRODUCT DESCRIPTION:

High-build, two-component polyamine epoxy direct to metal with anti-corrosion pigments for steel surface. Product developed for application on dry, wet and hydroblasted surfaces and on a specific primer.

RECOMMENDED USES:

Ships, offshore and marine structures:
Ballast and fuel tanks, decks, oil exploration platforms and on-board machinery. Piles all along their length, service structures permanently immersed in fresh or salt water in port facilities (under direction of WEG Technical Department).
Industrial applications: Pulp and paper, chemical and petrochemical, bridges, metal structures, interior of thickeners and mechanisms, such as flotation cells (on request).
Piping: It can be applied in the interior and exterior of pipes (overhead or buried).
Maintenance coating: This product can be used in the maintenance coating of the exterior of tanks in operation where the substrate temperature is not above 70 °C. For this situation, use 150 microns of dry thickness.

CERTIFICATIONS AND APPROVAL:

It complies with the Ministry of Health Directive No. 2914 regarding water for human consumption.

This product complies with regulation GM/MS No. 888 of the Ministry of Health, dated May 4, 2021. This product, when supplied to comply with the RoHs Directive (Restriction of Certain Hazardous Substances) has the letter R in its description.

Pre-qualified according to NORSOK M-501, Edition 5, System 7.
Meets System 3B of standard NORSOK M-501, Edition 6.
Meets System 7B of the NORSOK M-501 standard, Edition 6.
Complies with IMO MSC.215 (82) resolution for painting ballast tanks, as certified by DNV and RMRS.

PACKAGING:

Component	Content	Package	Unit of measurement
Component A	2,88 16	3,6 20	L
Component B	0,72 4	0,9 4	L
Component B II	0,72 4	0,9 4	L

CHARACTERISTICS:

Color: Ral, Munsell or as per customer standard.

Gloss: Gloss >80 UB
VOC content: 190 g/l
Volume solid: 85 ± 2% (ISO 3233).

Shelf-Life: 24 months at 25°C.
Thickness per coat (dry): 160 µm –500 µm
Theoretical coverage: 2,26 m2/l without dilution in the thickness of 375 µm dry. Without considering loss factors in application.

Resistance to dry heat: Maximum temperature 120 °C . The product retains its physical and chemical properties up to the temperature of 120 °C however, variations in the coating color and gloss may occur from 60 ºC.

Drying:

	5ºC	15°C	25ºC	40ºC
Touch:	8 hours	6 hours	3 hours	2 hours
Handling:	30 hours	16 hours	8 hours	5 hours
Final:	336 hours	240 hours	168 hours	144 hours
Pot Life	3 hours	2 hours	90 minutes	45 minutes

Overcoating Drying:

	5ºC	15°C	25ºC	40ºC
Min	30 hours	16 hours	8 hours	5 hours
Max	14 days	10 days	7 days	5 days

SURFACE PREPARATION

The performance of this product depends on the degree of surface preparation.

The surface must be clean, dry and free of any contaminants. Completely remove oils, greases and fats, as described in the SSPC-SP 1 standard.

The accumulated dirt must be removed using a dry brush, clean and dry cloth, compressed air blow, vacuum cleaner and/or with the combination of such items, and the soluble salts must be removed through wash with a great quantity of fresh water, preferably with low pressure (up to 5,000 psi) according to SSPC-SP 12/NACE No. 5.

Surface treatment through the hydroblasting process

This product can be applied to a surface that has been hydroblasted and presents the grade “light flash rust”, WJ-2 L of the SSPC-VIS 4/NACE VIS 7 visual standard.

Execute hydroblasting (pressure ≥ 10,000 psi) according to SSPC-SP standard 12/NACE No. 5, reaching grade WJ-2 (C WJ-2, D WJ-2, E WJ-2, F WJ-2, G WJ-2 and H WJ-2) of the SSPC-VIS 4/NACE VIS 7 visual standard.

NOTE 1: The hydroblasting at extreme high pressure can remove oils and greases from the surface; however, that does not rescind the requirement of the previous degreasing stage.

Note 2: The high or extremely high hydroblasting does not open an anchor pattern (only if the surface has already been subject to some type of abrasive blasting).

Surface treatment through Abrasive Blasting process

Execute the abrasive blasting to near white metal, Sa 2 ½ grade of the ISO 8501-1 visual standard (A Sa 2 ½, B Sa 2 ½, C Sa 2 ½ and D Sa 2 ½) or according to SSPC-SP 10/NACE No. 2, SSPC-VIS 1 visual standard (A SP 10, B SP 10, C SP 10, D SP 10, G1 SP 10, G2 SP 10, G3 SP 10).

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

Inspect the newly blasted surface observing the presence of surface flaws that could become apparent after this stage, adopting appropriate actions to mitigate such defects through grinding, weld filling and/or epoxy putty.

In case of oxidation on the substrate from the end of the abrasive blasting to the beginning of the coating application, the surface must be blasted again until reaching the specified visual standard.

For areas close to sea air, it is necessary to wash the surface with fresh water at low pressure (minimum 3,000 psi) before the abrasive blasting. And in some cases it is necessary to repeat the washing procedure after the abrasive blasting to remove possible soluble contaminants settled on the surface proceeding with a new abrasive blasting.

The maximum content of soluble impurities in the blasted and/or hydroblasted surface and the distilled water (used for the test) must not exceed a conductivity higher than 7µm/cm² for atmospheric regions and 3µm/cm² in immersed, buried, or submerged areas, according to ISO 8502-6 and ISO 8502-9.

Surface treatment through the manual mechanical cleaning process

Execute manual mechanical cleaning for carbon steel surfaces that present the oxidation grades C or D, according to the SSPC-VIS 3 visual standard. For surfaces previously painted that present grades E, F or G according to standard SSPC-VIS 3.

NOTE: If it is not possible to execute the manual mechanical cleaning process, as an alternative the surface can be prepared with commercial abrasive blasting, grade Sa 2 of the ISO 8501-1 visual standard (C Sa 2 and D Sa 2) or according to SSPC-SP 6/NACE No. 3, SSPC-VIS 1 visual standard (C SP 6, D SP 6).

Treat the surface mechanically until obtaining at least grade St 3 of the ISO 8501-1 visual standard or according to SSPC-SP 11; the SSPC-VIS 3 visual standard can be used as an aid.

Application over primer

NOTE: Observe the product overcoating interval to apply the next coat. In case the maximum overcoating interval has been exceeded, it is necessary to manually/mechanically sand the surface to break the gloss of the previous coat and clean the sanding residues so as to provide better adhesion between the coats.

Treatment of Steel Carbon Surfaces

Hard superficial layers (for example, layers resulting from flame cut) must be removed by grinding it before beginning the abrasive blasting.

All the welds must be inspected e, if necessary, be repaired before the ending of the abrasive blasting. Porosity, cavities, weld splashes, etc. must be repaired by means of proper mechanical treatment or weld

repair; in the other areas, round the sharp edges (r ≥ 2 mm, ISO 8501-3).

Refinishing of surfaces with aged coating in good conservation conditions

In cases where the aged coating has good adhesion to the substrate, we recommend superficial sanding to break the gloss, followed by the cleaning of the dust and residues of the sanding in order to provide better adhesion between the coats.

We recommend the user of this coating to seek ways to make sure the original aged painting is still well bond to the substrate before executing this refinish. Loose aged coatings or not well bonded must be completely removed. We emphasize that the refinishing must only be made on surfaces in good conservation conditions.

It is acceptable to use less demanding surface preparation standards, provided that the absence of contaminants is guaranteed by cleaning with fresh water at high pressure (between 5,000 psi and 10,000 psi) according to SSPC-SP 12/NACE In. 5. If any further explanation is necessary, contact our technical area to determine alternatives for the proper surface preparation on a case by case basis.

Remove all the existing contaminants on the coating. In case the film has spots not well bonded, remove it with brush off grade 1 or according to SSPC-SP7 standard. ISO 8501-1 visual standard.

Corrosion spots, worn or damaged areas and the like shall be prepared by commercial abrasive blasting to Sa 2 of ISO 8501-1 visual standard or according to SSPC-SP 6 / NACE No. 3, SSPC-VIS 1 visual standard. If it is not possible to execute the abrasive blasting, as an alternative the surface can be prepared with rotary power tools according to SSPC-SP 11.

In order to apply this coating to Inorganic Zinc Silicate Shop Primers still intact and in good conservation conditions, they must be prepared just by cleaning with Nylon brushes or washing with fresh water at low pressure (up to 5,000 psi), according to standard SSPC-SP 12/NACE In. 5.

For application on Iron Oxide Epoxy Shop Primers, make sure the primer is intact, clean and dry. If the maximum overcoating interval recommended for the Shop Primer is exceeded, manual/mechanical sanding is necessary to break the gloss. This procedure is necessary to obtain adhesion between the coats.

Maintenance and repair

In cases where the aged coating has good adhesion to the substrate, we recommend superficial sanding to break the gloss, followed by the cleaning of the dust and residues of the sanding in order to provide better adhesion between the coats.

For further information, consult WEG Technical Department.

PREPARATION FOR APPLICATION

Mixture

Homogenize the contents of each component with mechanical or pneumatic stirring (A and B). Check there are no sediment settled at the bottom of the package. Add component B to component A, at the recommended proportion (volume), under stirring, until complete homogenization, observing the mixing ratio.

Mixing ratio (Volume)

4 A **X** 1 B.

Diluent
Epoxy diluent 3005

Dilution
Depending on the application method, dilute at most. 5%

Do not dilute with solvents that are not allowed by local legislation and do not exceed the recommended dilution percentage.

Only add the diluent after complete mixing of components A + B.

The quantity of diluent may vary depending on the type of equipment used and the ambient conditions during the application.

Excessive dilution of the coating may affect the formation and aspect of the film and not allow to reach the specified thickness.

Pot life of the mixture (25°C)
1 h 30 min
Check the pot life values in the Characteristics field.

The pot life is reduced with a higher room temperature.

The pot-life test is performed according to the Brazilian standard ABNT NBR 15742; however, different volumes of coating prepared at once combined with different ambient and coating temperatures will influence the pot life, and different results than those mentioned in this data sheet may be found.

Induction time (25°C)
No induction time required.

In hot areas, we recommend consulting WEG Technical Department.

APPLICATION FORMS

The data below is a guide, and similar equipment may be used.

In the spray application, make a 50% overlap in each gun pass, concluding with a cross pass. This technique is used to avoid uncovered and unprotected areas and to obtain a suitable aesthetic finish.

Recoat all sharp edges, cracks and weld beads with a brush to prevent premature failures in these areas.

Changes in nozzle sizes and pressures may be necessary to improve spraying characteristics.
Before application, check if the equipment and its components are clean and in best condition.
Purge the compressed air line to prevent contamination of the coating.

After mixing two-component products, if there are stops in the application, and pot life is exceeded (the coating shows variation in fluidity) it can no longer be diluted for further application.

The data below is a guide, and similar equipment may be used.

Conventional gun:

Gun:	JGA 502/3 Devilbiss or equivalent
Fluid nozzle:	EX
Air cap:	704
Atomization pressure:	50 - 70 psi
Pressure in the tank:	10 - 20 psi
Dilution:	5%

Airless Gun:

Use Airless:	Use at least pump 60: 1
Fluid pressure:	2000 – 3000 psi
Hose:	¼" internal diameter
Nozzle:	0,015“ - 0,021“

Brush:
Only recommended for touch up small areas or stripe coat (screws, nuts, weld and sharp edges). Use a brush 75 to 100 mm wide for larger surfaces and 25 to 38 mm for touch up.

Roller:
Only recommended for small areas or retouching. Use a thin nap, seamless sheepskin or microfiber roller for epoxy coatings.

For application with brush and/or roller, two or more passes may be necessary to obtain a uniform layer according to the recommended film thickness per coat.

Cleaning the equipment:
Epoxy diluent 3005

NOTE:
Clean all equipment immediately after use.

Do not leave catalyzed product in contact with the equipment used in the application, because the coating will vary in fluidity at temperatures above specificated in the pot life and will cure faster, making the cleaning difficult.

Furthermore, it is a good working practice to periodically wash the spray equipment along the day. The cleaning frequency will depend on the amount sprayed, temperature and elapsed time, including all delays.

PERFORMANCE IN THE APPLICATION

For a good performance of the product, we recommend following the directions below:

Epoxy-based products are known by having excellent anti-corrosion properties and low resistance to sunlight exposure. In situations of exposure of the film to the weather, over time it will present a loss of gloss known as chalking and its shade will change as a consequence. Remember that even undergoing such chalking, the film anti-corrosion protection is not impaired.

In paintings carried out in front of the sea, if exposed to sea air, we recommend to wash with fresh water between coats eliminating settled impurities.

Light colors may require more than one coat for an even coverage.

For situations with temperature between 52 and 70 °C: the best performance of this product occurs over abrasive blasting to grade Sa 2 ½ or hydroblasting to grade CWJ -2L. However, for equipment in this temperature range, on which the procedures above cannot be carried out because of its use, the application over manual mechanical treatment to grade St3 according to ISO 8501-1 is acceptable.

WEGPOXI WET SURFACE 88 HT can dry and cure under permanent immersion conditions after application on a carbon steel surface (2 hours of ambient drying at 25 °C). However, remember that the newly painted surfaces in direct contact with water during the curing process may present spots with change in color (more noticeable in dark colors). For further information, consult WEG Technical Department.

Do not apply the product after the pot life has expired.

For better application properties, the coating temperature should be between 21 - 27 °C prior to the mixing and application.

In coatings with variation in application method in the same job, the final aspect and gloss of the painted surfaces may show differences.

The temperature of the substrate, the weather and environmental conditions during the application and during the curing of the product, and the thickness of the coat may interfere in the product drying time.

Variations in color, aspect and gloss (more noticeable in dark colors) may occur, as well as delay in curing and low coating performance, when applied during periods of high air relative humidity, rainy days, low temperatures or drying the coating outdoor.

For further information, consult WEG Technical Department.

COMPATIBILITY OF SYSTEMS AND MAINTENANCE REFINISHING

The product can be directly applied to aged coatings or other coating systems. It is, however, advisable to test the contact of the product with the previous coating in a small test area. We recommend sanding to break the gloss for a better performance of the product. Make sure the original material is well bonded. All loose coating must be removed. Points with corrosion or application over aged coatings should be treated according to technical guidance.

In case no topcoat is applied to the product, two coats of this product can be applied at the appropriate thickness.

To apply topcoat over the product, the overcoating interval should be observed. The surface must be dry and free of any contaminants.

For further information, consult WEG Technical Department.

SAFETY PRECAUTIONS

Product developed for industrial use intended for handling by qualified professionals.

Please read carefully all the information contained in the MSDS of this product, available at: www.weg.net.

Store in a covered, well-ventilated area. 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.

Wear protective gloves / protective clothing / eye protection / face protection.

Avoid release this product and its packaging, as well as materials used during handling and application in the environment.

NOTE:

The information contained in this technical datasheet is based upon the experience and knowledge acquired in the field by the technical team of WEG.

If using the product without previous inquiry to WEG Coating concerning its suitability for the customer's intended purpose, the customer is aware that the use shall be its exclusive responsibility, WEG not being responsible for behavior, safety, suitability or durability of the product.

Some information contained in this datasheet are estimated, and can undergo variances arising from factors outside the manufacturer's control. Thus, WEG does not guarantee and does not assume any responsibility regarding the yield, performance or any other material or personal damage resulting from the incorrect use of the products concerned or the information contained in this Technical datasheet.

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