TECHNICAL DATA SHEET

W-POXI DFA 301 TRÁFEGO RÁPIDO

PRODUCT DESCRIPTION: High-build 2-pack polyamide epoxy coating. It has a low content of volatile organic compounds (VOC) and can be applied indoors, whether the environment is closed or not. It is a high gloss coating used in floor coating systems.

RECOMMENDED USES: The product was developed to paint concrete floors in food plants, hospitals, labs, pulp and paper plants, chemical and petrochemical industries, sugar plants, alcohol distilleries and other industrial floors. This coating must be directly applied to the sealer W-POXI CVS 301, W-POXI HSS 301 or another primer recommended by WEG COATINGS technical department.

CERTIFICATIONS AND APPROVAL: This product, when supplied to comply with the RoHs Directive (Restriction of Certain Hazardous Substances) has the letter R in its description.

PACKAGING:

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

CHARACTERISTICS:

Color: Gray, and colors (on request)

Gloss: Gloss
VOC content: 182 g/l
Volume solid: 88 ± 2% (ISO 3233).

Expiry Date: 12 months at 25°C.

Thickness per coat (dry): 100 µm –150 µm
Theoretical coverage: 7 m2/l without dilution in the thickness of 125 µm dry. Without considering the loss factors in the 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:

	10ºC	25ºC	35ºC
Handling:	-	12 hours	-
Light traffic:	36 hours	16 hours	8 hours
Heavy traffic:	96 hours	24 hours	18 hours

Repainting Drying:

	10ºC	25ºC	35ºC
Min	36 hours	12 hours	8 hours
Max	72 hours	24 hours	18 hours

SURFACE PREPARATION

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.

Concrete Surface Treatment
For further information, refer to the Concrete Surfaces Preparation and Application Manual.

Observe the overcoating interval between the coats of the sealer or primer for the application of the product. If the overcoating time is exceeded, sand as described in the sealer or primer data sheet.

This product should be directly applied to a sealer or primer recommended for concrete surfaces, in order

to compose a suitable coating system. For the correct application of the sealer/primer, refer to its data sheet.

The performance of this product is related to the degree of surface preparation. The surface must be clean, solid, free of any kind of contaminants, totally dry and rough enough to allow adhesion of the protection system.

No coating of any kind can be directly applied to the concrete floor or subfloor with curing accelerator additives, unless representative tests indicate the possibility of satisfactory adhesion of the coating system.

No type of coating or painting must be applied, without the concrete (or subfloor of sand and cement mortar) being totally dry and cured for at least 28 days in normal climatic conditio.

Coatings should not be directly applied to floors contaminated with oil or aggressive products. The floor must be effectively cleaned. In case the application is done over residues of such contaminants, the coating film may come off, and other flaws and defects may occur.

Coating over old concrete only with recommendation of WEG Technical Department.

The application of the product must be carried out as directed by our technical department in order to obtain the best performance. The assessment of factors such as surface conditions, roughness, quantity of contaminants and other characteristics is essential for the proper execution of the surface preparation.

For further information, consult WEG Technical Department.

PREPARATION FOR APPLICATION

Mixture

Homogenize the contents of each component by means of mechanical or pneumatic stirring (A and B). Ensure that no sediment is 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 3013

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 the 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 of the film and appearance and hinder the attainment of the specified thickness.

Pot life of the mixture (25°C)
30 min
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.

Reinforce 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 the spraying characteristics.

Before the application, make sure the equipment and its components are clean and in the best condition.

Purge the compressed air line to prevent contamination of the coating.

After mixing the 2-pack products, if there are stops in the application, and the pot life is exceeded (the coating presents variation in its fluidity), it can no longer be diluted for further application.

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“
Filter:	Mesh 60
Dilution:	Max. 5%

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

Roller:
Use a thin nap, seamless sheepskin or microfiber roller for epoxy coatings.

For application with brush and/or roller, application in 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 3013

NOTE:

Clean all equipment immediately after use.

Do not leave the catalyzed product in contact with the equipment used in the application, because the coating will present variations in fluidity at temperatures above the specification in the pot life and will harden, 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:

Minor variations in color, appearance and gloss (more noticeable in dark colors) may occur, as well as delay in curing and impairment of surface performance, when applied during periods of high air relative humidity, rainy days, low temperatures or in case the coated parts are put to dry outdoors.

In paintings executed on the seafront, if exposed to the action of sea air, we recommend to wash with fresh water between coats eliminating the settled impurities.

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

During the initial cure (first 24 hours), the humidity should not exceed 85%, at the risk of compromising the appearance.

It should not be applied in adverse conditions, such as air relative humidity above 85% or on condensed surfaces. Small variations in color, appearance and gloss of the coated parts may occur in periods of high air relative humidity, rainy days, at low temperatures or in situations where the coated parts are placed to dry outdoors.

Product not recommended for painting the interior of tanks

Epoxy systems may have longer curing time when exposed to low temperatures. For temperatures below 10 °C, consult WEG Technical Department.

We recommend coating only if the measured surface temperature is at least 3 °C above the dew point temperature.

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 the application method in the same job, the final appearance and gloss of the painted surfaces may present 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 applied film may interfere with the product drying time.

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 of the 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 prior 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 the behavior, safety, suitability or durability of the product.

Certain information contained in this datasheet is merely an estimate, 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.

The information contained in this technical datasheet is subject to periodic modification, without prior notice, due to the policy of evolution and continuous improvement of our products and services, providing solutions with quality to satisfy our customers' requirements.

APPLICATION MANUAL

1. **General Painting Recommendations:**

1.1. Environmental conditions, surface cleaning, interval between coats:Respecting all the features described in the technical bulletin.

1.2. No paint must be applied, if it is expected that the ambient temperature can fall to 0°C, before the paint has dried.

1.3. No paint application must be done in rain, mist or fog, or when the relative air humidity exceeds 85% (eighty-five percent), or when it is expected to be reached, under risk of jeopardizing the adherence between coats or total of the film applied.

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

1.5. The concrete surfaces shall receive suitable treatment to attain conditions of providing the good performance of the painting system.

2. General Floor Recommendations:

2.1. So that the protection system can be applied, the surface shall be clean, solid, free of any types of contaminant, totally dry and have sufficient rugosity to allow the adherence of the protection system to be applied.

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

2.3. No coating of any kind can be directly applied to the concrete floor or subfloor with curing accelerator additives, unless representative tests indicate the possibility of satisfactory adhesion of the coating system.

2.4. No type of coating or painting must be applied, without the concrete (or subfloor of sand and cement mortar) being totally dry and cured for at least 28 days in normal climatic conditio.

2.5. Coatings must not be applied to floors contaminated with oils or aggressive products. The floor shall be clean in efficacious manner. If the application is done on residue of these contaminants, the coating film may be detached and other types of failure and defect.

2.6. The execution project of the concrete shall foresee its prior impermeabilization, in order to avoid rising damp or the rise of the water table by the concrete capillarity, under the burden of appearance of blistering (bubbles) and peeling of the paint.

2.7. Check the presence of humidity in the concrete as per standard ASTM D 4263, summarized below:

2.7.1. Stick a plastic sheet 18 x 18 inches (457 mm x 457 mm) using adhesive tape of the type Silver Tape 3M, level with the concrete surface ensuring that all the edges are well sealed.

2.7.2. Deixar a folha plástica selada ao concreto por no mínimo 16 h no local.

2.7.3. After this time period (between 16 – 24 h), remove the plastic sheet and evaluate visually the under part of the sheet an surface of the concrete regarding the presence of humidity.

2.7.4. Execute the sampling of 01 (one) test area every 46 m² or proportion thereof.

2.7.5. Do not execute the painting if there is any type of residual humidity in the plastic sheets of the samplestra.

3. General Recommendations for painting on old paint:

3.1. An analysis shall be made regarding the compatibility of the old paint with the system to be applied. If there is any incompatibility, the painting shall not be done, or all the old paint shall be removed beforehand. If there is compatibility, the sanding shall be executed (to break the gloss and promote adherence) and cleaning of the floor.

3.2. If there is peeling of old paint (even with compatible systems), a scraping and/or removal of all the old paint shall be executed. For this scraping tools can be used as steel spatulas, milling machines and grinders G-16 – G-24.

3.3. The surface, after scraping, sanding or any other type of repair shall be clean of contaminants and residue.

3.4. Contact the Technical Department of WEG (WEG Paints) to evaluate the requirement of applying the sealer.

4. Execution of Painting (Basic methodology recommended):

4.1. **Start degreasing:**

4.1.1. Wet all the surface well with clean water, under high pressure and preferably hot.

4.1.2. Spread uniformly over all the area a biodegradable detergent solution as per instruction of the detergent manufacturer;

4.1.3. Rub vigorously with the aid of industrial floor waxers, polishers and/or piassabai palm brushes and brooms;

4.1.4. Leave it to act on the floor for approximately 10 minutes;

4.1.5. Rinse with clean water in abundance, under high pressure and preferably hot and leave it to dry.

4.1.6. Repeat this start degreasing process, as many times as necessary. As an option the floor can be rubbed in the localized points where the greatest contamination by oil and ordinary acids is perceived, followed by the degreasing process, described above.

Important Comment: Para el inicio de la aplicación del sistema de pintura descrito abajo, es necesario que el piso esté
completamente seco, sin humedad, para esto se puede utilizar la ayuda de sopletes, siempre asegurándose con la prueba del papel plástico (ASTM D 4263). Antes de iniciar el pintado el concreto deberá presentar humedad residual e hasta un máximo de 6%.

4.1.7. These technical recommendations aim to obtain the best performance of the painting system.

4.2. **Surface preparation:**

4.2.1. The surface preparation must be executed in compliance with Standard SSPC SP-13/NACE # 6, Technical Guideline # 03732 of ICRI – International Concrete Repair Institute and compared with 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
- CSP 9 – Heavy scarification

4.2.2. The type of surface preparation will affect the thickness of the painting schema and consequently the consumption and yield of the material, also impacting the real function of the system applied (see the table below):

Visual Standard (Technical Guide of ICRI)		**mils**	**mils**	**µm**
CSP-1	Acid etching	13.5	+/- 2.5	342.9
CSP-2	Grinding	16	+/- 2.5	406,4
CSP-3	Light shotblast	19	+/- 2.5	482.6
CSP-4	Light scarification	25	+/- 2.5	635.0
CSP-5	Medium shotblast	33	+/- 2.5	838.2
CSP-6	Medium scarification	63	+/- 2.5	1600.2
CSP-7	Heavy abrasive blast	87.5	+/- 5	2222,5
CSP-8	Scabbled	105	+/- 5	2667.0
CSP-9	Heavy scarification	107	+/- 5	2717.8

4.2.3. **Scarification (milling cutter):**

This method is an excellent option for repairs and recovery of damaged surfaces, being appropriate for both light and heavy work.

This equipment is recommended for cutting antiskid grooves, removal of surface layers of concrete contaminated as with grease, oil, rubber, synthetic paving, paint, drops, ranges of traffic demarcation among other application ion floor surfaces in general.

The milling cutter consists of an electric motor (three-phase or single-phase) or gasoline engine which rotates a reel of tools/disks parts of Widea (tungsten carbide) which execute the surface wear and chipping of the floor. The depth of the wear will depend upon the type and format of the disk used together with the milling cutter shaft.

4.2.4. **Manual polishers and rotary hammers:**

The polishers are intended for the service of preparation, regularization, reduction, cleaning and polishing of floors and coatings. These machines work with electric motors (three-phase or single-phase) and with 1 or 2 multiuse disks (3 grinders or diamond tipped inserts per disk).

Depending upon the hardness of the floor, inserts of carborundum or widea (tungsten carbide) can be used.

4.2.5. **Captive blast with centrifugal turbines:**

Another way of preparing the concrete, mainly in floors, is with the blast produced by centrifugal turbines, using steel shot in a closed circuit. The turbine throws the shot particles against the concrete and a strong vacuum withdraws the powder and shot, which undergo a purification process and return to the turbine to be thrown against the floor again. This method wears some millimeters of the concrete.

4.2.6. **Treatment with acido:**

This type of surface treatment with acid requires great care and attention. Acid is only recommended on floors at the level of the soil and walls, provided that there is no risk of infiltration, as acid attack in the ironwork can jeopardize the mechanical resistance and safety of the structure.

When opting to use this method, follow the steps below:

4.2.6.1. Wet the surface beforehand, apply the solution with 15% of hydrogen chloride (muriatic) acid in water (01 part of commercial muriatic acid to 01 part of water in volume).

Important note: To calculate the quantity of solution required, consider that 10 liters of muriatic acid solution covers approximately 15 to 18 m2 of area.

4.2.6.2. Spread the acid solution uniformly on the surfasse, using nylon piassabai palm brush, avoiding the formation of puddles and letting the solution act on the concrete until the surface has a rugosity similar to a sheet of sandpaper 80.

4.2.6.3. Wash with water in abundance to eliminate all the acid residue and attain pH near to neutral.

4.2.6.4. Apply the first coat of the sealer or coating when the concrete is dry.

5. General Recommendations for Painting New Floor:

5.1. One must proceed as per the instructions of the technical bulletin described in this document, as well as the aforesaid instructions.

5.2. If there any queries regarding the performance of the floor, do not apply any product and contact the technical area of WEG (WEG Paints).

5.3. For the preparation and application, it is advisable to contract specialized companies responsible for the application of the product.