

# FLOOR SOLUTIONS

Painting solutions suitable for industrial floors, aligning productivity and aesthetics



Motors | Automation | Energy | Transmission & Distribution | Coatings

# FLOOR SOLUTIONS

In addition to protection for tools, equipment and industrial structures, WEG Coatings also offers full solutions to paint industrial floors. It is proved that proper care with the workplace floor directly contributes to increasing productivity. Floors in poor conditions, besides the bad aspect, end up jeopardizing the operations, causing accidents and delays. In addition to the protection, the coating improves the environment aesthetics, making the work environment more pleasant.



**CHECK OUT THE VIDEO**  
PAINTING THE FLOOR OF  
SCHORNSTEIN BREWERY WITH  
URETHANE COATING



## EPOXI Floor Line

### Sealers

#### W-POXI CVS 301

The bicomponent polyamine epoxy varnish **W-POXI CVS 301** is a conventional sealing varnish that adheres to different surfaces. It can reduce the excessive or irregular absorption of the topcoat when applied over porous substrates. This fast-drying product is supplied as a glossy topcoat. It is designed to seal the surface and provide a good adhesion base coat for concrete, cement, asbestos, masonry and wood surfaces, which can be found in floors, concrete tanks, walls, structural columns, among others. In order to obtain a smoother and glossier surface, it is recommended to apply two coats or more.<sup>1</sup>



**FAST  
DRYING**



**GLOSSY  
FINISH**

#### W-POXI HSS 301

The high performance, bicomponent, epoxy-based varnish **W-POXI HSS 301** is recommended as surface impregnation and sealing varnish, in addition to ensuring a good adhesion base coat for the system used. This high solids, solvent-free product is supplied as a glossy topcoat. Another advantage of this varnish is the reduction of the excessive or irregular absorption of the topcoat when applied over porous substrates. It is used on concrete, cement, asbestos, masonry, tiles and wood surfaces, which can be found in floors, concrete tanks, walls, structural columns, among others. In order to obtain a smoother and glossier surface, it is recommended to apply two coats or more.<sup>1</sup>



**HIGH  
PERFORMANCE**



**SEALER  
VARNISH**

#### W-POXI HIDRO CVS 332

It is a bicomponent, modified, water-soluble, epoxy sealer. It provides adhesion to concrete surfaces, as well as decreases the excessive or irregular absorption of the topcoat when applied to porous substrates. The product is indicated for painting of green and wet concrete (recently made), concrete tanks, walls, structural columns, among others.

- It is not necessary to wait 28 days for concrete's cure;
- Allows application on **green and wet concrete**;
- **Reduces the time** of painting performance services;
- **Reduces the waiting time** for the start of painting services on green concrete (recently made).



**WATER-SOLUBLE**



**GREEN CONCRETE  
(NEWLY MADE)**

*Note: 1) The coverage of this product is related to the state (flaws) of the surface to be repaired. The calculation for the quantity of coating is done theoretically, and it will directly depend on the state of the surface. In order to reach the expected coverage, you must control the quantity of coating to be applied by the area to be coated. For further information on how to proceed, refer to the Basic Application Manual.*

# EPOXI Floor Line

## Repair Primers

This line of repair primers consists of two products: **W-POXI PRP 301** and **W-POXI PRR 301**. Use these products to fix small flaws on the floor, such as cracks, cavities, holes and places damaged by mechanical actions. Its epoxy-polyamine, solvent-free composition with the addition of silica allows a high solids and high build application at each coat. Easily applied with scrapers or steel tooth trowels, the primer can be used for small repairs on the floors of parking lots, garages, hospitals, laboratories, pulp and paper plants, pharmaceutical plants, chemical and petrochemical industries, sugar mills, alcohol distilleries and other industrial floors, indoors and outdoors. <sup>1</sup>

### W-POXI PRP 301



Drying in 16 hours to continue the services

### W-POXI PRR 301



Drying in **3 hours** to continue the services

*Note: 1) The coverage of this product is related to the state (flaws) of the surface to be repaired. The calculation for the quantity of coating is done theoretically, and it will directly depend on the surface conditions. In order to reach the expected coverage, you must control the quantity of coating to be applied over the area. For further information on how to proceed, refer to the Basic Application Manual.*

## Topcoats

### W-POXI DFA 301

The **W-POXI DFA 301** is a high build, bicomponent, polyamine epoxy topcoat of the LOW VOC (low organic compound) material class. It is recommended to paint concrete floors in environments where traffic is light (pedestrians) to moderate (light vehicles). In addition, other advantages of this coating are the variety of colors and the good coverage, enabling you to find the perfect look for the environment to be transformed. It can be applied indoors or outdoors<sup>2)</sup>, whether closed or not. Applications include painting the concrete of laboratories, hospitals, garages and other places where traffic is from light to medium such as in industries in general. <sup>1</sup>

### W-POXI DFA 301 FAST TRAFFIC

The **W-POXI DFA 301 FAST TRAFFIC** coating presents characteristics similar to **W-POXI DFA 301**. However, its great differential is in the much faster release of painted areas. <sup>1</sup>

	W-POXI DFA 301		W-POXI DFA 301 TRÁFEGO RÁPIDO
Tráfego de pedestres	24h	→	16h
Tráfego de automóveis	96h	→	24h

### W-POXI HBA 301

The **W-POXI HBA 301** is a high performance, high build, self-leveling topcoat thanks to its high mechanical, abrasive and chemical resistance. Its protective high coverage film beautifies the environment with its high gloss, facilitating its cleaning. Another advantage of this coating is the various colors, packages choices and excellent coverage. The **W-POXI HBA 301** line is also available in the WEG tintometric system. Applications include **places of medium and heavy traffic** to protect industrial floors, such as workshops, chemical and petrochemical industries, sugar mills, paper plants, alcohol distilleries, etc. <sup>1</sup>

*Note: 1) For coating systems with higher efficiency, use WEG sealers and repair primers of the floor line.  
2) For outdoor applications, we recommend applying the last coat of W-THANE HBA 501 to retain color and gloss.*

## Adhesive Varnish

### W-POXI HSV 301 INCOLOR

The colorless epoxy varnish **W-POXI HSV 301** Colorless is self-leveling and solvent-free, has low VOC content and ensures smooth and uniform high gloss, which facilitates cleaning the environment. The varnish was developed to be adhesive and applied on the floor, providing abrasion, mechanical and chemical resistance.

## Polyurethane Topcoat

## NEW PRODUCT

### W-THANE DRV 561

**W-THANE DRV 561** is a glossy bicomponent aliphatic polyurethane-acrylic polyester varnish that should be used in the coating system to ensure high strength. After curing, the varnish forms a colorless glossy film that presents high performance and hardness. It is recommended for places that need lasting aesthetics, in addition to a great yellowing and weathering resistance. Its finish prevents the sticking of dust on its surface, making cleaning easier.

Used to ensure greater brightness in a great variety of applications in industrial floors, concrete structures, parking lots, warehouses, gyms, utility companies, among others, which makes this varnish an excellent topcoat choice.

- It helps preserve the appearance for a longer period;
- High scratch resistance;
- Easy cleaning and maintenance;
- Excellent resistance to ultraviolet (UV) rays.



# Coating System

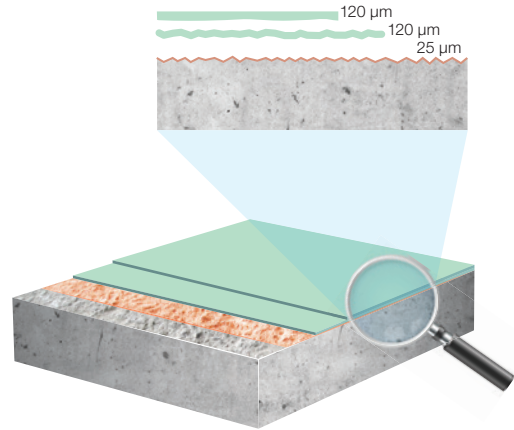
Below are some of the most recommended coating systems to paint floors. These systems basically encompass three formats of coating application, including traffic (light, moderate or intense), and they are also related to the level of preparation of the surface where they will be applied. In some cases, the use of aggregate Mix 30 or Mix 80 is recommended to increase the strength of the coating system. In case further explanation is necessary or different coating systems are required, WEG Coatings recommends referring to the technical area or a professional specialized in painting of industrial floors.

## System - A

**Use recommendations:** recommended for new or old floors (previously painted – aged coating), in indoor or outdoor applications<sup>1)</sup> where there is light traffic (pedestrians). For other indications, refer to the technical department of WEG Coatings or a specialized professional.

Sealer	W-POXI CVS 301	25 µm
Intermediate	W-POXI DFA 301	120 µm
Topcoat	W-POXI DFA 301	120 µm

Notes: 1) For outdoor applications, we recommend to apply the last coat with **W-THANE HBA 501**, for color and gloss retention.  
In case an anti-slip topcoat is necessary for ramps, stairs, escape routes, etc., WEG Coatings offers **W-POXI ADA 314** or **W-POXI BLOCK ADA 404** which can be used as final coat of the coating system.

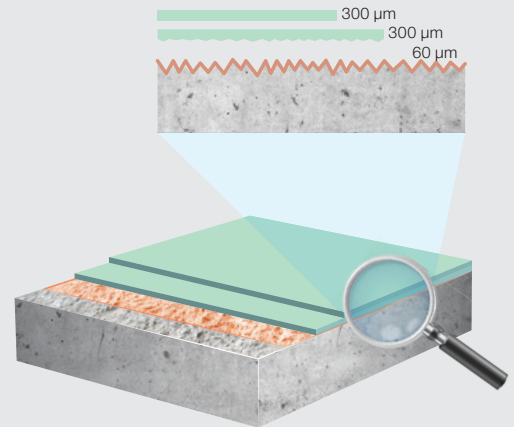


## System - B

**Use recommendations:** recommended for new or old floors (previously painted – aged coating), in indoor or outdoor applications<sup>1)</sup> where there is moderate traffic (cars, light vehicles). For other indications, refer to the technical department of WEG Coatings or a specialized professional.

Sealer	W-POXI HSS 301	60 µm
Intermediate	W-POXI HBA 301 add aggregate mix 80	300 µm
Topcoat	W-POXI HBA 301 add aggregate mix 80	300 µm

Notes: 1) For outdoor applications, we recommend to apply the last coat with **W-THANE HBA 501**, for color and gloss retention.  
In case an anti-slip topcoat is necessary for ramps, stairs, escape routes, etc., WEG Coatings offers **W-POXI ADA 314** or **W-POXI BLOCK ADA 404** which can be used as final coat of the coating system.

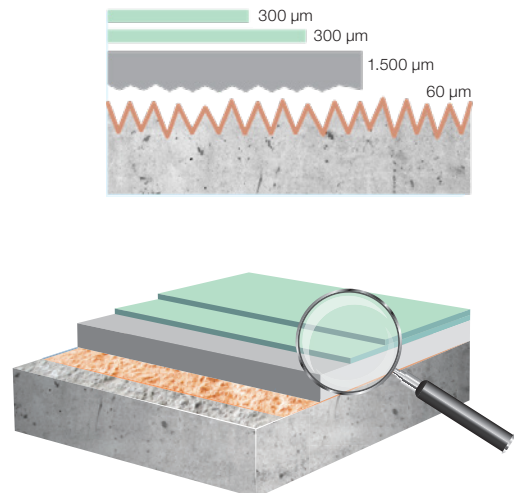


## System - C

**Use recommendations:** recommended for new or old floors (previously painted – aged coating), in indoor or outdoor applications<sup>1)</sup> where there is intense and heavy traffic (trucks, industries in general). Other indications, refer to the technical department of WEG Coatings or specialized professional.

Sealer	W-POXI HSS 301	60 µm
Intermediate	W-POXI PRR 301 add aggregate mix 30	1.500 µm
Topcoat	W-POXI HBA 301 add aggregate mix 80	300 µm
Topcoat	W-POXI HBA 301 add aggregate mix 80	300 µm

Notes: 1) For outdoor applications, we recommend to apply the last coat with **W-THANE HBA 501**, for color and gloss retention.  
In case an anti-slip topcoat is necessary for ramps, stairs, escape routes, etc., WEG Coatings offers the **W-POXI ADA 314** or **W-POXI BLOCK ADA 404** which can be used as final coat of the coating system.



## Floor Line for the Food Industry

WEG understands the specific challenges of the various food industries, and we are responsive to providing innovative solutions for maximum floor protection, observing the concerns about contamination, cleaning and reduction of long-term maintenance costs.

The use of urethane floor coating has been recommended in a great variety of industrial applications, especially in the food and beverage industry, due to its excellent performance and resistance. It has great resistance to abrasion, impact and chemicals.

In addition to the highlights above, the urethane floor coating has highly effective antimicrobial agents, so bacteria and fungi do not proliferate on the floor. With self-leveling properties, the urethane coating is matte and also an extremely hygienic material, since cleaning it is easy and fast, as it does not have porosities that absorb dirt, which makes such task more complicated.

- ✓ Resistance to traffic;
- ✓ Resistance to impacts generated by the handling of boxes and pallets;
- ✓ Low porosity, easy cleaning and sanitizing;
- ✓ Reduction of critical contamination spots, such as joints and sharp edges;
- ✓ Chemical resistance to organic and inorganic acids;
- ✓ Thermal resistance.

### W-POLI HSS 455

The **W-POLI HSS 455** is a two-component urethane resin-based coating developed for primings and as an adhesion bridge for the urethane system. It is used in coating plans for floors with excellent resistance to abrasion, also provides excellent mechanical, chemical, physical and thermal resistance. Developed to seal and promote adhesion of baseboards, floors, walls, stairs, channels and industrial floors. Suitable for indoor and outdoor use.

### W-POLI PRR 455 NOBAC

The **W-POLI PRR 455 NOBAC** is a three-component, urethane resin-based mortar coating designed to correct minor flaws on floors, such as cracks, cavities, holes and places damaged by mechanical actions, which can then be leveled. In addition, it will ensure the correct adhesion of the topcoats of the same type for its application in the food and beverage industries.

### W-POLI ANA 455 NOBAC

The **W-POLI ANA 455 NOBAC** is a high performance three-component, predosed topcoat ready for mixing and application. The produced system is a high solids, solvent-free, low VOC and antimicrobial application that inhibits the proliferation of microorganisms, according to ASTM G-21.

Ideal for floors in the food and beverage industries, for instance, that need excellent abrasion, chemical, mechanical, physical and thermal resistance. When cured, the coating produces a smooth matte surface with the thickness ranging from 3 to 6 mm.<sup>1)</sup>

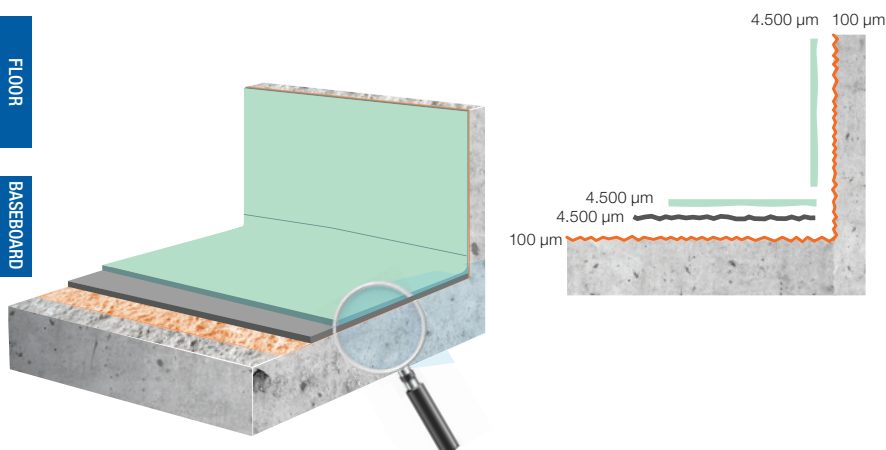
### W-POLI RPA 455 NOBAC

The **W-POLI RPA 455 NOBAC** is a high performance, self-leveling, troweled urethane-based mortar coating. Developed for industrial baseboards, it is a three-component predosed composite, ready for mixing and application. In contains bactericidal agents that prevent the proliferation of microorganisms on the surface of the coating, according to the ASTM G-21 Standard. When applied, the coating produces a smooth matte finish, besides providing easy cleaning.

Sealer	W-POXI HSS 455	100 µm	FLOOR
Repair primer	W-POLI PRR 455 NOBAC	4.500 µm	
Topcoat	W-POLI ANA 455 NOBAC	4.500 µm	
Sealer	W-POXI HSS 455	100 µm	BASEBOARD
Baseboard topcoat	W-POLI RPA 455 NOBAC	4.500 µm	

Note:

1) To check information regarding the system resistance, refer to the Data Sheet or contact WEG Technical Department.



## Floor Line for Cold Rooms

The environments of cold rooms, walk-in freezers are different from any other environments. Regular exposure to thermal cycles during cleaning and sanitation procedures and severe condensation are some of the specific challenges these environments face and thus require high performance coatings.

WEG Coatings is constantly dedicated to the development of durable coatings that can withstand extreme conditions.

This type of application can cure at temperatures as low as  $-5\text{ }^{\circ}\text{C}$ <sup>1</sup>, facilitating the application, as it is not necessary to turn off the equipment. In addition, they add excellent resistance to impact and chemical attacks. The floor for cold rooms is widely used in supermarkets, hospitals, and the food, beverage, dairy and pharmaceutical industries.

- ✓ Resistance to negative temperatures;
- ✓ Resistance to periodic cycles of frosting and defrosting;
- ✓ Impact resistance;
- ✓ Traffic resistance.

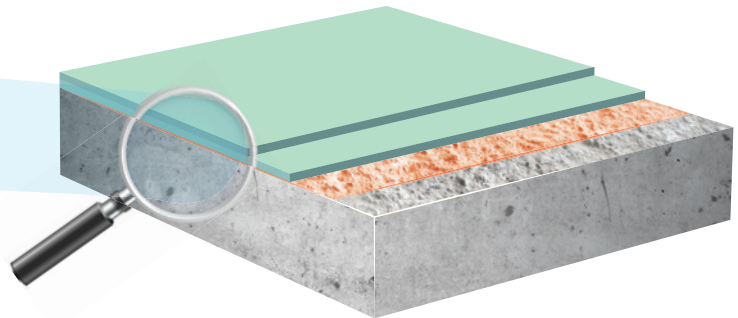
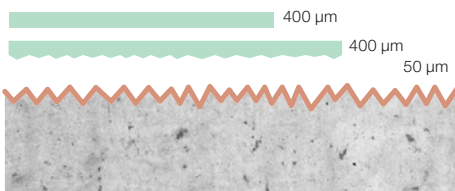
### W-POLI HSS 461

For low cure temperatures ( $-5\text{ }^{\circ}\text{C}$ <sup>1</sup>), WEG developed the bicomponent, solvent-free, aliphatic functional amine resin-based varnish sealer **W-POLI HSS 461**. It dries fast, besides being colorless and high solids. This product offers excellent adhesion to concrete and asbestos cement surfaces, reducing the excessive or irregular absorption of the topcoat when applied over porous substrates.<sup>2</sup>

### W-POLI HPA 461

Due to the extreme working conditions in cold rooms, the floor requires a topcoat that protects concrete from low temperatures. Based on aliphatic functional amine, the **W-POLI HPA 461** is a bicomponent, solvent-free topcoat applicable in a high build single coat that cures at temperatures as low as  $-5\text{ }^{\circ}\text{C}$ <sup>1</sup>. In addition to resisting to the thermal shock caused by rapid temperature changes, it is a high gloss, high solids and high UV resistance coating. It can be used to protect floors of cold rooms from food industries, hospitals, laboratories and other environments that operate at low temperatures.<sup>2</sup>

Sealer	W-POLI HSS 461	50 $\mu\text{m}$
Topcoat	W-POLI HPA 461	400 $\mu\text{m}$
Topcoat	W-POLI HPA 461	400 $\mu\text{m}$



Notes: 1) Once the floor coating is completely cured, it can be subjected to even lower negative temperatures. For further information, contact WEG Technical Department.

2) The W-POLI 461 line, with its Sealer and Topcoat, can also be used for other environments, other than cold rooms, such as external environments, because its technology has characteristics of great resistance to ultraviolet rays.



## Complementary Products

### Lines and Demarcations

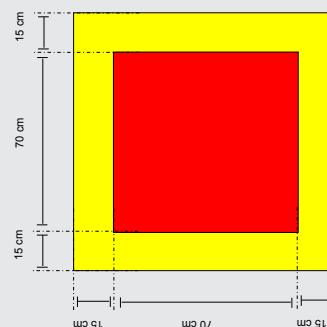
The internal floor demarcations in industrial areas are extremely important regarding quality and safety. In order to paint crosswalks, production lines, fire-fighting areas, among others, WEG recommends the line W-POXI DFA 301. This line, besides being easy to apply with painting roller or brush, comes in different colors in tintometric system – providing flexibility and agility in the development of the colors of your company.



#### Location of extinguishers and guiding lines

A large area of the floor, which cannot be blocked, must be painted in red under the extinguisher.

This area must have at least 1,00m x 1,00m. According to NBR 7195 - colors Munsell red 5R4/14 and yellow 5Y8/12.



### Anti-Slip Floor

WEG Coatings also offers anti-slip topcoats, which can be applied in areas such as ramps, stairs, escape routes, etc., providing greater safety for pedestrian and even for the operation of vehicles.

#### W-POXI ADA 314

Bicomponent, polyamide, epoxy coating with anti-slip function. High hardness, resistant to water, oil, salts. It provides a layer of texture and consequent anti-slip.

#### W-POXI BLOCK ADA 404

High-thickness, high-solids, bicomponent, epoxy primer Novolac that offers high hardness, water, oil and salt resistance, providing a high-texture and consequent anti-slip film. Presenting extremely low content of solvent (LOW VOC) and great abrasion and impact resistance, it also provides unmatched anticorrosive protection with excellent surface hardness impermeability. The product complies with Petrobrás Standard N 1374.

#### W-POLI ADA 462

Two-component, aliphatic, functional amine-based coating with a non-slip, solvent-free function, which can be applied indoors or outdoors, providing a highly textured and therefore non-slip film. Composes coating plans for floors with excellent chemical resistance and color and gloss retention. Applicable in high thicknesses in a single coat, the product was developed for fast curing and protection of industrial floors.



### Road Demarcation

WEG Coatings has a wide product line for road demarcation. They are robust products developed with solvent base and water base, using imported resins and of recognized quality. These products comply with the Brazilian standards ABNT NBR 11862 and ABNT NBR 13699, and they can be applied on asphalt and cement floors.

# Basic Application Manual

## 1. General Painting Recommendations:

- 1.1.** Environment conditions, surface cleaning, interval between coats: observe all the characteristics described in the technical bulletin of the coatings to be applied.
- 1.2.** No coating can be applied if the ambient temperature is expected to drop down to 0°C before the coating is cured.
- 1.3.** No coating application can be carried out during rainy, foggy or misty weather, or when the relative humidity is above 85% (eighty five percent), nor when such level is expected to be reached, under the risk of compromising the adhesion between coats or total adhesion of the applied coat.
- 1.4.** Each coat must have a uniform thickness, free of flaws, such as porosity, wrinkling, blistering, craters, and impregnation of other visible contaminants.
- 1.5.** The concrete surfaces must receive proper treatment to reach conditions that provide a good performance for the coating system.

## 2. General Recommendations of the Floor:

- 2.1.** In order to enable the application of the protection system, the surface must be clean, solid, free of any kind of contaminants, totally dry and rough enough to allow adhesion.
- 2.2.** The floor must present neutral (7) or slightly alkaline (10) pH.
- 2.3.** No coating of any kind can be applied over the floor or subfloor of concrete with cure accelerator additive, unless representative tests indicate the possibility of satisfactory adhesion of the coating system to be applied.
- 2.4.** No coating of any kind can be applied without the concrete (or subfloor of mortar of cement and sand) being totally dry and cured for at least 28 days under normal weather conditions.
- 2.5.** No coatings can be applied over 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 film of the coat may come off, and other flaws and defects may occur.
- 2.6.** The concrete execution project must provide previous sealing so as to prevent the rising of humidity or of the water table through the concrete capillary otherwise, blistering may occur and the coating may come off.
- 2.7.** Check the presence of humidity in the concrete as per standard ASTM D 4263, briefly described below:
  - 2.7.1.** Affix a plastic sheet of 18 x 18 inches (457 mm x 457 mm) with Silver Tape closely fit to the concrete, making sure all the 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 (16– 24 h), remove the plastic

sheet, and visually inspect the part in contact with the concrete for the presence of humidity.

**2.7.4.** Sample one test area every 46 m<sup>2</sup> or proportion of that.

**2.7.5.** Do not perform any coating in case residual humidity is present on the plastic sheets of the sample.

## 3. General Recommendations for coating over aged coatings:

- 3.1.** An analysis regarding the compatibility of the aged coating with the system to be applied must be carried out. In case of incompatibility, the coating cannot be performed unless all the old coating is previously removed. In case of compatibility, the floor must be sandpapered (to remove the gloss and promote adhesion) and cleaned.
- 3.2.** In case of peeling of the aged coating (even if the systems are compatible), the aged coating must be scraped or removed. For such scraping, tools like steel scrapers, milling cutters and grinders with grit g-16 – g-24 must be used.
- 3.3.** After the scraping, sandpapering or any other kind of treatment, the surface must be free of contaminants and residues.
- 3.4.** Contact the Technical Department of WEG Coatings to assess the need to apply sealer.

## 4. Execution of the Coating (basic methodology recommended):

- 4.1.** Initial degrease:
  - 4.1.1.** Wash the entire surface with high-pressure, clean water – preferably hot.
  - 4.1.2.** Evenly spread all over the areas a solution of biodegradable detergent according to directions of the detergent manufacturer;
  - 4.1.3.** Vigorously brush with industrial floor polishers and/or brooms.
  - 4.1.4.** Leave the solution on the floor for approximately ten minutes;
  - 4.1.5.** ERinse it with abundant, high-pressure, clean water – preferably hot – and leave it to dry naturally.
  - 4.1.6.** Repeat this process as many times as necessary. As an optional procedure, the floor can be milled in the spots with greater contamination by common oil and acids, and then perform the degrease process described above.
  - 4.1.7.** Important Note: To start the application of the coating system described below, the floor must be completely dry – free of humidity. In order to accomplish that, blowtorches can be

used, always checking with the plastic sheet or aluminum foil test (ASTM D 4263). Before beginning the painting, the concrete must present residual humidity of at most 6%.

**4.1.8.** These technical recommendations intend to obtain better performance of the coating system.

**4.2. Surface Preparation:**

**4.2.1.** The surface preparation must be performed according to Standard SSPC SP-13/NACE N° 6, Technical Direction No 03732 of ICRI – International Concrete Repair Institute, and compared to the visual standards expressed as CSP 1 to 10:

**4.2.3. Scarifying:**

This equipment is recommended to cut anti-slip grooves, removal of concrete surface layers contaminated with grease, oil, rubber, synthetic paving, coatings, traffic lines, among other applications on floor surfaces in general.

The scarifier consists of a motor that spins a reel of tungsten carbide tools/discs that roughen and remove thin layers

from the floor surface. The thickness of the layer removed depends on the type and shape of the disc used.

**4.2.4. Manual and rotary hammer grinders:**

Those machines operate with motors with one or two multiuse discs (three diamond inserts or grindstones per disc). Depending on the floor hardness, silicon carbide and tungsten carbide inserts can be used.

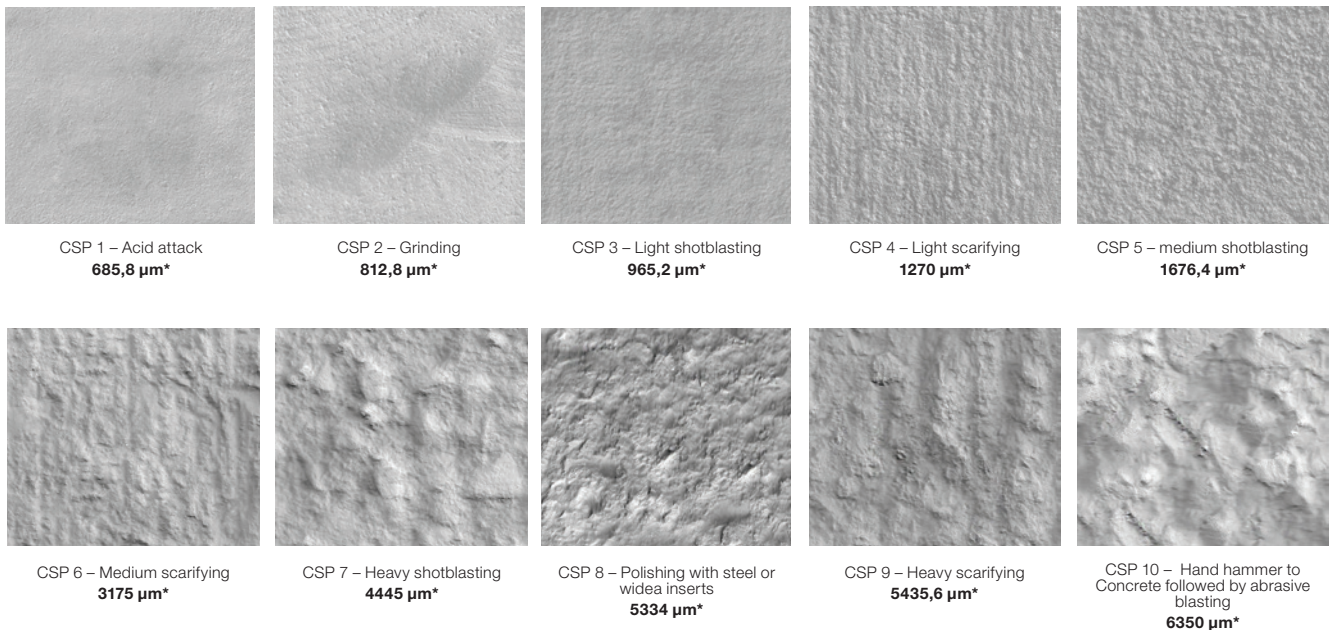
**4.2.5. Shotblasting:**

Another way to prepare the concrete, especially floors, is shotblasting, using steel shots in a closed circuit.

**4.2.6. Acid treatment:**

It is only recommended on ground level floors and walls, provided there is no risk of infiltration, since the acid attack to the hardware may compromise the mechanical strength and safety of the structure. When using this method, follow the instructions contained in the technical bulletins of the products or their containers.

**4.2.2. Visual patterns of ICRI - International Concrete Repair Institute**



\*Note: medium roughness after surface treatment.



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The values are subject to change without prior notice.  
The information contained is reference values.