

W-POLI TCA 45

PRODUCT DESCRIPTION:	Polyaspartic finish. It features high solids, good color and gloss retention, extra fast drying. It can be applied in a single coat in high thickness over WEGPOXI HSS 301 INCOLOR primer.
RECOMMENDED USES:	Recommended for the painting of concrete tower.

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.
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PACKAGING:	Component	Content	Package	Unit of measurement
	Component A	15	20	L
	Component B	5	5	L

CHARACTERISTICS:	Color:	Ral, Munsell or as per customer standard.		
	Gloss:	Gloss	>80 UB	TCA 501
		Semigloss	60 – 80 UB	TCA 502
		Semi matte	30 – 60 UB	TCA 503
		Matte	15 – 30 UB	TCA 504
		Ultra matte	0 – 15 UB	TCA 505
	VOC content:	259 g/l		
	Volume solid:	65 ± 2% (ISO 3233).		
	Shelf-Life:	12 months at 25°C.		
	Thickness per coat (dry):	120 µm –150 µm		
	Theoretical coverage:	4,81 m ² /l without dilution in the thickness of 135 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 °C.		
	Drying:			
		10°C	25°C	35°C
	Touch:	50 minutes	20 minutes	10 minutes
	Handling:	3 hours	1 hour	40 minutes
	Final:	168 hours	168 hours	168 hours
	Overcoating			
	Drying:	10°C	25°C	35°C
	Min	4 hours	2 hours	1 hour
	Max	48 hours	24 hours	18 hours

SURFACE PREPARATION	The performance of this product is associated with 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. Accumulated dirt must be removed using a dry brush and soluble salts must be removed by washing with high pressure fresh water. Application over primer The product can be directly applied to a specific primer in order to form a suitable coating system. The primer surface should be clean, dry and free of any contaminants, and the topcoat should be applied within the specific primer overcoating interval (refer to the primer data sheet). Concrete Surface Treatment
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Before starting the painting, all masonry or concrete must be cured (28 days for cement or concrete mortar) and dry, without cracks, cracks, alveoli and perfectly adhered to the base or other layers of mortar and coating.

All the cement cream, grease stains, oil, grease or any other contamination that has penetrated or deposited on the surface to be painted, in addition to any dust that has accumulated, must be removed from the release surfaces.

Very smooth and glassy surfaces are not suitable for painting and should be treated according to technical guidelines.

If it is old concrete, a technician's inspection is advisable.

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

Maintenance and repair

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.

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

Pu diluent 5007

Dilution

Depending on the application method, dilute at most. 15%

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

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

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

In places with higher temperature and air relative humidity, the pot life will decrease.

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.

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.

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

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 - 30 psi
Dilution:	15%

Airless Gun:

Use Airless:	Use at least pump 60: 1
Fluid pressure:	2000 - 2500 psi
Hose:	¼" internal diameter
Nozzle:	0,015" - 0,021"
Filter:	Mesh 60
Dilution:	Max. 5%

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:

Use a thin nap, seamless sheepskin or microfiber roller for epoxy coatings. We have observed in the field applications that reference 329/5 (Atlas Brushes), proved to be efficient for application with thicknesses of 100 to 150 micrometers per coat.

Cleaning the equipment:

Pu diluent 5007

NOTE:

PERFORMANCE IN THE APPLICATION

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.

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

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

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.

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

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

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.

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.

It should not be applied under adverse conditions, such as air relative humidity (RH) above 85%, as changes in color and appearance may occur.

The application of the product in situations where the air relative humidity is above 50% may accelerate drying, and the pot life of the mixture may be reduced.

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

Product not intended for immersion and continuous contact with water.

A uniform thickness in a single coat will be easier to achieve if the product is applied with an airless spray gun. If another application method is used, more passes and/or crossed passes may be required. Environmental and substrate conditions also interfere with the performance of the product application.

For further information, consult WEG Technical Department.

COMPATIBILITY OF SYSTEMS AND MAINTENANCE REFINISHING

In situations where the nature of the primer is unknown, it is recommended to test the compatibility of the product in a small area. Check the original material is well adhered. All loose coating must be removed. Points with corrosion or application over aged coatings should be treated according to technical guidance.

W-POLI TCA 455 can be applied over WEGPOXI HSS 301 primer.

The primer overcoating interval should be respected before applying the topcoat. If the maximum recommended overcoating interval is exceeded, manual/mechanical sanding is necessary to break the gloss. The primer 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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