# **Coatings** Solutions for Energy



# Solutions for Hydropower Plants

# WEGPOXI CVD 323

High solids polyamide epoxy Primer/Topcoat with anticorrosive pigments based on zinc phosphate and good applicability. Excellent adhesion to carbon steel treated with abrasive blasting. Coating applicable in a high build single coat, simplifying the coating process.

# WEG TAR FREE WT

High build bicomponent epoxy primer/topcoat with excellent chemical and anticorrosive resistance and good abrasion resistance. It complies with standard AWWA C-210. It is certified for contact with drinking water, meeting the Resolution 105 (Type I) of Anvisa (Brazilian National Health Surveillance Agency) and Directive 2914 of the Brazilian Health Ministry.



# W-POXI WET SURFACE 88 HT

 High build bicomponent polyamine epoxy primer/topcoat formulated with anticorrosive pigments for steel surfaces. Developed for application on dry, wet, and hydroblasted surfaces and over a specific primer.

Concerned about the environment, WEG Coatings provides LOW VOC class paintings. The result? High performance and low content of volatile solvent coatings.

# WEGPOXI BLOCK N 2912

LOW VOC class high build and high solids Novolac epoxy primer. Excellent barrier protection and high resistance to abrasion and impact with anticorrosive protection, excellent superficial hardness and impermeability.

#### W-THANE ENA 501

High build aliphatic acrylic polyurethane topcoat, with high solids per volume, which provides resistance to continuous weathering. LOW VOC class coating.

Recommended Use	Surface Propagation		Primer	Topcoat			
		Coats	Lines	μ <b>m</b>	Coats	Lines	μm
	Abrasive Blasting Sa 2 ½	1	WEG TAR FREE WT		-	-	-
Internal Floodgates		2	WEGPOXI WETSURFACE 88 HT	250	-	-	-
		1	WEGPOXI BLOCK N 2912 TIPO II	400	-	-	-
External Floodgates	Abrasive Blasting Sa 2 1/2	1	W-POXI CVD 323	120 - 200	1	W-THANE ENA 501	75 - 125

Note: The schemes submitted are designed to ideal conditions of application. Under different conditions and schemes, please contact WEG Coatings technical department.



# Solutions for Thermal Power Plants

# LACKPOXI N 2198

Adhesion primer for nonferrous surfaces.

#### WEGPOXI CVD 322

High solids polyamide epoxy Primer/Topcoat with zinc phosphate-based anticorrosive pigments and good applicability. Excellent adhesion to carbon steel treated with abrasive blasting. Coating applicable in a high build single coat, simplifying the coating process.

# W-POXI ZSP 315 N1277

Zinc-rich polyamide epoxy Primer.

#### W-POXI ERP 322

High solids bicomponent polyamide epoxy primer with zinc phosphate-based anticorrosive pigments, fast drying and good applicability. It has excellent adhesion to carbon steel treated by abrasive blasting.

#### WEGTHANE HPA 501

High solids aliphatic acrylic polyurethane topcoat with excellent color and gloss retention as well as chemical resistance.

#### ZINC SILICATE ETHYL ALUMINIUM N 2231

Inorganic Ethyl Silicate Coating pigmented with zinc and aluminum, resistant to high temperature (up to 500°C).

#### W-TERM HPD 364 ALUMINIUM

Phenolic epoxy topcoat with excellent corrosion and chemical resistance combined with the application on surfaces operating at high temperatures (up to 220°C).

# W-TERM HPD 660 600°C ALUMINIUM

Modified single-component silicon-based topcoat, temperature resistant up to 600°C with inorganic zinc primers that composes a high performance system for resistance to corrosion and high temperatures.

#### **WEGPOXI WET SURFACE 89 PW**

High build bicomponent epoxy primer/topcoat with high solids. Surface tolerant product: applicable on dry, wet or hydroblasted steel substrates with manual or mechanical treatment. It offers excellent anticorrosive protection in aggressive environments.

Recommended I	Internal and External Coating of Parts, "Hoods", etc Galvanized Steel Surfaces									
Application	Curface Drenaration	Primer			Intermediate Coating			Topcoat		
	Surface Preparation	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>
Sheltered area (up to 100°C)	Physicochemical cleaning / sanding	1	LACKPOXI N 2198	15	1	W-POXI ERP 322	80	-	-	-
Outdoor Parts exposed to weathering (up to 100°C)	Physicochemical cleaning / sanding	1	LACKPOXI N 2198	15	1	W-POXI ERP 322	100	1	WEGTHANE HPA 501	50

Recommended L	Jse	Internal and External Coating of Parts, "Hoods", etc Galvanized Steel Surfaces									
Application	Surface Properties		Primer	In	termediate C	oating	Topcoat				
Application	Surface Preparation	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>	
Conventional Area (up to 100°C)	Abrasive blasting Sa 2 ½	1	W-POXI ERP 322	100	-	-	-	1	WEGTHANE HPA 501	50	
Conventional Area Parts (up to 100°C and peaks of 500°C)	Abrasive blasting Sa 2 1/2	1	ZINC SILICATE ETHYL ALUMINIUM N 2231	75	-	-	-	-	-	-	
Outdoor Parts exposed to weathering	Abrasive blasting Sa 2 ½	1	W-POXI ZSP 315 N 1277		1	WEGPOXI CVD 323	100	1	W-THANE ERA 531	35	
(up to 100°C)				60			100	1	WEGTHANE HPA 501	50	
Maintenance	Manual or Mechanical	1	WEGPOXI WETSUR- FACE 89 PW	100	1	WEGPOXI CVD 323	100	1	WEGTHANE HPA 501	50	

Note: The schemes submitted are designed for ideal application conditions. Under different conditions and schemes, please contact WEG Coatings technical department.



# Solutions for Wind Power Plants

In the segment of Wind Energy, WEG has a wide range of solutions, from the painting of the blades and tower structure to the most diverse internal and external equipment of the plant. They combine the versatility of products that can be applied on diverse substrates, such as fibers, concrete, galvanized steel and plastic, and excellent anticorrosive protection and high performance.

# W-POXI ZSP 315 N1277

 Zinc-rich bicomponent polyamide epoxy primer. The product provides anticorrosive protection for carbon steel. It features fast drying, increasing the productivity and complies with Petrobras Standard N 1277.

### WEGTHANE HPA 501

 High performance aliphatic acrylic polyurethane topcoat.
High solids product with excellent color and gloss retention as well as chemical resistance.

# **WEGPOXI WET SURFACE 88 HT**

High build bicomponent polyamine epoxy Primer/Topcoat formulated with anticorrosive pigments for steel surfaces. Product developed for application on dry, wet and hydroblasted surfaces and on a specific primer. Food contact certified (drinking water).

	Conventional scheme – using zinc rich based primer										
Application	Curfood Proporation		Primer			Intermediate Coating		Topcoat			
Аррисацон	Surface Freparation	Coats Line µm		Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>		
Tower (external part)	Abrasive blasting Sa 2 $\frac{1}{2}$	1	W-POXI ZSP 315 N 1277	60	1	WEGPOXI WET SURFACE 88 HT	160	1	WEGTHANE HPA 501	60	
Tower (internal part)	Abrasive blasting Sa 2 ½	1	W-POXI ZSP 315 N 1277	60	-	-	-	1	WEGPOXI WET SURFACE 88 HT	120	

Note: The schemes submitted are designed to ideal conditions of application. Under different conditions and schemes, please contact WEG Coatings technical department.



### Painting Scheme for Concrete Wind Tower

Currently, concrete towers allow higher heights than steel towers. Consequently, the capacity to reach very high heights, such as 120 meters or more, is increased. Based on that, Weg has specific painting schemes for concrete towers.

#### W-POXI HSS 301

Bicomponent polyamine epoxy varnish that offers adhesion to concrete, cement, asbestos, masonry and wooden surfaces and decreases the excessive or irregular absorption of the top coat when applied over porous substrates.

# W-THANE TCA 502

High build aliphatic acrylic polyurethane topcoat, with high solids per volume. It provides an anticorrosive protection barrier with high sealing power and excellent resistance to weathering and abrasion. VOC product line (low content of organic compounds).

	Painting scheme for concrete towers									
Decommonded use	Decommonded upo		Primer		Торсоат					
Recommended use	necommended use	Coats	Line	μm	Coats	Line	μm			
Concrete tower	Sanding	1	W-POXI HSS 301	25	1	W-THANE TCA 502	75			

#### **Painting Scheme for Wind Turbine Blades**

#### W-POLI HSM 452 PUTTY

Polyaspartic Putty. High solids and extra fast drying product. It can be applied in a high build single coat directly on the fiber. It is used as a primer for modeling and correction of wind turbine blade imperfections.

#### W-POLI HSM 452 PORE FILLER

Polyaspartic Putty. High solids and extra fast drying product. Applied in a single coat directly to the substrate or over the Putty.

#### W-POLI LEP 455

Polyaspartic primer/intermediate coating. High solids product. Extra fast drying product that provides excellent barrier protection, high resistance to abrasion and impact, excellent surface hardness and impermeability.

#### W-POLI RLA 455

**Polyaspartic topcoat.** High solids product with excellent color and gloss retention and extra fast drying. Product used as a topcoat for wind turbine blade coating.

	Conventional scheme – using zinc rich based primer												
Application	Surface		Primer			Intermediate Coating			Topcoat				
Application	Preparation	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>			
Leading edge		1		500-3000	1	W-POLI HSM 452 PORE FILLER	100-200	1					
Leaung euge	Sanding	'	W-FOLITISIN 452 FOTT	500-5000-	1-3*	W-POLI LEP 455	125-175		W-POLI RLA 455	80-125			
Blade shell		-	-	-	-	-	-	1-2					

Note: The schemes submitted are designed to ideal conditions of application. Under different conditions and schemes, please contact WEG Coatings technical department.



# Solutions for Transformers

# W-POXI TFP 304

Epoxy primer recommended for internal coating of tanks and transformers.

# **STARZINC 122 N 1277**

Zinc-rich bicomponent polyamide epoxy primer. It provides cathodic protection for substrates. Recommended as anticorrosive primer in structures and equipment exposed to aggressive environments. It complies with Petrobras Standard N 1277.

# W-POXI ERP 305

Fast drying polyamide epoxy primer.

# W-POXI MCP 312

High build polyamine epoxy primer or intermediate coating.

# **Painting Scheme for Transformers**

# W-POXI MCP 300

Bicomponent polyamide epoxy primer pigmented with zinc and micaceous iron oxide. It features fast drying, substantially reducing the overcoating intervals. Excellent anticorrosive protection and abrasion resistance.

# W-THANE HBA 503

High build aliphatic acrylic polyurethane topcoat, with high solids per volume and low VOC. It provides an anticorrosive protection barrier with high sealing power, chemical resistance and resistance to continuous weathering.

# LACKPOXI N 2198

Aliphatic isocyanate shop primer with fast drying and excellent adhesion to nonferrous surfaces, such as aluminum, galvanized steel, lead, copper, brass and fiberglass.

Bacommonded Lioo		Surface	Primer		Intermediate Coating Topcoat		μm - 75 - 125 75 - 125 40 - 50	
Recommended Use		Preparation	Lines	μ <b>m</b>	Lines	μ <b>m</b>	Lines	μ <b>m</b>
Urban and industrial environments of medium aggressiveness.	Internal	Blasting Sa 2 ½	W-POXI TFP 304	40 - 50	-	-	-	-
Marine or highly aggressive environments		Blasting	STARZINC 122 N 1277	65 - 120	W-POXI MCP 312	85 - 150	W-THANE HBA 503	75 - 125
Medium aggressiveness environments		Sa 2 ½	W-POXI ERP 305	85 - 120	-	-	W-THANE HBA 503	75 - 125
Urban and industrial environments of medium aggressiveness for galvanized steel substrates	External	Physicochemi-		25 - 30	-	-	W-POXI TFP 304	40 - 50
Medium aggressiveness environments with galvanized steel substrates		sanding		23-30	W-POXI ERP 305	85 - 150	W-THANE HBA 503	75 - 125

Note: The schemes submitted are designed to ideal conditions of application. Under different conditions and schemes, please contact WEG Coatings technical department.

# **Varnishes for Transformers**

Product	Characteristic	
LACKTHERM 1355	F Class oven-cured impregnation varnish for oil transformers.	
LACKTHERM 1303	Class B air drying impregnation varnish for small transformers (electronics industry).	
LACKTHERM 1351	F Class air drying impregnation varnish for oil transformers.	

# Solutions for Solar Energy

The sun is an inexhaustible source of energy, and Brazil has an enormous potential for harnessing it. WEG uses its experience and technology to provide a complete coating solution for fastening structures of photovoltaic system plates, which are made of carbon steel, galvanized steel or aluminum. The coatings of those structures are intended to promote durability against the actions of weather, winds or storms, which cause corrosion and can displace the parts attached to them.

Photovoltaic systems have an average service life of 25 years and their structures need to ensure high durability and resistance for a similar period, whether in large solar plants or small distributed generation projects, even under adverse weather conditions.

# W-POXI ZSP 315 N1277

Zinc-rich polyamide epoxy primer.

# WEGTHANE HPA 501

High solids aliphatic acrylic polyurethane topcoat with excellent color and gloss retention as well as chemical resistance.

# W-POXI ERP 322

 High solids bicomponent polyamide epoxy primer with zinc phosphate-based anticorrosive pigments, fast drying and good applicability. It has excellent adhesion to carbon steel treated by abrasive blasting.

	Application	Surface Prenaration	Primer				Intermediate Coating	Topcoat			
		ourrace i reparation	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>	Coats	Line	μ <b>m</b>
	Carbon steel structures	Blasting Sa 2 ½		W-POXI ZSP 315 N1277	70	1	W DOVI EPD 222	150			
	Galvanized steel structure	Physicochemical clean- ing / sanding	1	LACKPOXI N2198	15		W-FUXI ENF 322	150	1	WEGTHANE HPA 501	60
	Aluminum structure	Physicochemical cleaning				-	-	-			



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