

COATING SOLUTIONS FOR METALLIC STRUCTURES

Coatings that serve all types of environments, aiming at greater protection and durability



Motors | Automation | Energy | Transmission & Distribution | Coatings



SOLUTIONS FOR
METALLIC
STRUCTURES

Solutions in Liquid Coatings

For the metallic structures sector, WEG has developed product lines that meet all kinds of environments, providing greater protection, durability and thus the satisfaction of the client. The following coating systems can be viewed at an information chart in the end of this brochure, making it easier to choose the product according to the environment classification required at ISO 12944 Standard.

Environments classification: (C1/C2) according to ISO 12944

The environments are classified as C1/C2 when the structure is placed in rural or urban areas with no aggressiveness or sea mist (over 30 kilometers away from the shore).

For this environment, the surface must be treated by solvent or degreasing cleaning, abrasive blast or phosphating.

Option 1: for indoor and outdoor environments

1º Coat

W-LACK CVP 115

■ High performance, fast drying, alkyd resin based primer with inert corrosion inhibiting pigmentation. Recommended for the protection of carbon steel.

2º Coat

W-LACK SRA 111

■ Fast drying, alkyd based topcoat recommended for coating machines and equipment subject to low physical and chemical aggressiveness.



Option 2: for indoor and outdoor environments

1º Coat

W-LACK CVD 121

■ Single component phenolic alkyd based resin primer/topcoat with excellent anticorrosive protection.

Environments classification: (C3) ACCORDING TO ISO 12944

The environments are classified as C3 when the structure is placed in rural or urban areas with low aggressiveness (atmospheric pollution), environments with high condensation levels (humidity) and no sea mist (over 30 Km away from de shore).

For this environment, surface must be treated by near white abrasive blasting, Sa 2 1/2 visual standard or manual/mechanic treatment, St 3 visual standard.

Option 1: for indoor environments

1ª e 2ª Coat

WEGPOXI CVD 323 / CVD 322

■ Two-component high solids polyamide epoxy primer topcoat with zinc phosphate pigmentation. Extra fast drying time and excellent adhesion to carbon steel.



Option 2: para Environments Externals

1ª Coat

W-POXI ERP 322

■ Two-component high solids polyamide epoxy primer with zinc phosphate pigmentation.

2ª Coat

WEGTHANE HPA 501

■ Two-component high gloss aliphatic, acrylic polyurethane topcoat with excellent durability and extended overcoating time.

Environments classification: (C4) according to ISO 12944

The environments classified as C4 are placed in urban areas with high atmospheric pollution levels, low to intermediate aggressive industrial environments and moderate sea mist (from 10 to 30 Kilometers from the shore).

For this environment, surface must be treated by near white abrasive blasting, Sa 2 1/2 visual standard.

Option 1

Painting scheme indoor environments	Product	Function
1° Coat	W-POXI ERP 322	Primer
2° Coat	WEGPOXI CVD 323 / CVD 322	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	W-POXI ERP 322	Primer
2° Coat	WEGTHANE HPA 501	Topcoat

Option 2

Painting scheme indoor environments	Product	Function
1° Coat	W-POXI ZSP 315 N1277	Primer
2° Coat	WEGPOXI CVD 323 / CVD 322	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	W-POXI ZSP 315 N1277	Primer
2° Coat	W-POXI ERP 322	Primer
3° Coat	WEGTHANE HPA 501	Topcoat

Environments classification: (C5-I) according to ISO 12944

Environments classified as C5-I are placed in industrial or urban areas with high chemical aggressiveness (vapors and gases), high condensation levels (humidity) and no sea mist.

Option 1

Painting scheme indoor environments	Product	Function
1° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
2° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
2° Coat	WEGTHANE HPA 501	Topcoat

Option 2

Painting scheme indoor environments	Product	Function
1° Coat	W-POXI ZSP 315 N1277	Primer
2° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	W-POXI ZSP 315 N1277	Primer
2° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
3° Coat	WEGTHANE HPA 501	Topcoat



For this environment, surface must be treated by near white abrasive blasting, Sa 2 1/2 visual standard.

Description of Products used

W-POXI ERP 322

■ Two-component high solids polyamide epoxy primer with zinc phosphate pigmentation.

WEGPOXI CVD 323 / CVD 322

■ Two-component high solids polyamide epoxy primer topcoat with zinc phosphate pigmentation. Extra fast drying time and excellent adhesion to carbon steel.

W-POXI ZSP 315 N1277

■ Two-component zinc rich polyamide epoxy primer. Provides anticorrosive protection to carbon steel. Fast drying time, increasing productivity.

Environments classification: (C5-M) according to ISO 12944

Environments classified as C5-M are placed in industrial or urban areas with no chemical aggressiveness in regions near to the sea shore (up to 10 kilometers away from the shore).

For this environment, surface must be treated by near white abrasive blasting, Sa 2 1/2 visual standard.

Option 1

Painting scheme indoor environments	Product	Function
1° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
2° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	WEGPOXI WET SURFACE 89 PW	Primer / Topcoat
2° Coat	WEGTHANE HPA 501	Topcoat

Option 2

Painting scheme indoor environments	Product	Function
1° Coat	LACKPOXI N 1277	Primer
1° Coat	LACKPOXI N 2630	Primer
2° Coat	LACKPOXI N 2628	Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	LACKPOXI N 1277	Primer
2° Coat	LACKPOXI N 2630	Primer
3° Coat	LACKTHANE N 2677	Topcoat

For galvanized surfaces

Surface preparation: solvent or degreasing cleaning, phosphating, slight sanding or sweeping blast. Verify Technical Data Sheet.

Painting scheme indoor environments	Product	Function
1° Coat	W-POXI GNP 415	Primer adhesion
2° Coat	WEGPOXI CVD 323 / CVD 322	Primer / Topcoat
Painting scheme outdoor environments	Product	Function
1° Coat	W-THANE SRD 501	Topcoat

LACKPOXI N 1277

■ Two-component polyamide, zinc rich epoxy primer. The product offers anticorrosive protection for carbon steel by galvanic action of the metallic zinc pigment.

WEGPOXI WET SURFACE 89 PW

■ Two-component high build high solids epoxy primer/topcoat. Product tolerant to surfaces: applicable to blasted, dry, humid hydroblasted steel substrates with manual or mechanical treatment.

LACKPOXI N 2630

■ Two-component, high solids high build polyamide epoxy primer with and anticorrosive zinc phosphate pigmentation.

W-THANE SRD 501

■ Two-component high performance aliphatic acrylic polyurethane primer/top coat. Provides good chemical and weathering resistance, excellent adhesion over galvanized and carbon steel, great color and gloss retention. High impact and hardness performance.

LACKTHANE N 2677

■ Two-component high solids high gloss acrylic aliphatic polyurethane topcoat. It composes an anticorrosive protection system with high waterproofing power, chemical resistance and resistance to natural weathering.



indoor environments



outdoor environments

LACKPOXI N 2628

■ Two-component, high solids high build epoxy topcoat cured with polyamide. Topcoat for anticorrosive protection in aggressive environments with high humidity and salt spray.

W-POXI GNP 415

■ Two-component epoxy primer, recommended for coating aluminium, galvanized steel, fiber and degreased steel surfaces. Provides high anticorrosive and chemical resistance, fast drying time, reducing total time of the coating process.

Powder Coatings Solutions

Besides the liquid coating schemes, we have powder coating schemes. For metallic structures, we have the lines:

- POLITHERM - Epoxy System / Hybrid System / Polyester System
- W-Zn (Zinc rich System)

For low aggressiveness environments

Surface Preparation: The substrate must be free of greases, mold release agents, dusts or other contaminants. Phosphate conversion coating is recommended to increase the resistance to corrosion. Chrome plating is recommended for aluminum substrates.

POLITHERM 20 / 22 (LOW-CURE)

- Hybrid powder coating with good adhesion and flexibility, good physical and chemical resistance. It is not recommended for outdoor applications.

POLITHERM 26 / 27 LINE (LOW-CURE)

- Polyester coating with excellent adhesion and flexibility, great physical resistance, good chemical resistance, excellent resistance to weathering and yellowing.

POLITHERM HB LINE (50, 54 and 56)

- High thickness powder coating. It provides layers from 100 to 150 microns in a single cold application, replacing the application of two layers, increasing the productivity, generating time and energy savings. Available in the hybrid, epoxy and polyester resins.



For medium aggressiveness environments

Option 1: for indoor environments

Surface Preparation: The substrate must be free of greases, mold release agents, dusts or other contaminants. Phosphate conversion coating is recommended to increase resistance to corrosion. Chrome plating is recommended for aluminum substrates.

Option 2: for outdoor environments

Surface Preparation: The substrate must be free of greases, mold release agents, dusts or other contaminants. Phosphate conversion coating is recommended to increase resistance to corrosion. Chrome plating is recommended for aluminum substrates.

POLITHERM 24

- Epoxy coating with excellent adhesion, flexibility, physical and chemical resistance. Excellent anticorrosive protection, low resistance to weathering and moderate resistance to yellowing. It is not recommended for outdoor applications.

POLITHERM 24 + POLITHERM 26 SYSTEM

- Powder coating system that combines chemical, weathering and corrosion resistance. Very recommended for metallic structures which will be exposed to outside areas with intermediate chemical aggressiveness.

For high aggressiveness environments

For this environment, surface must be treated by near white abrasive blasting, Sa 2 1/2 visual standard.

POLITHERM 24 W-Zn

- Anticorrosive zinc rich epoxy powder coating recommended for painting metallic parts. Developed for coating metal parts in situations where conventional phosphate conversion coating is not possible and anticorrosive protection is required. It can be used alone as topcoat or as primer of a system with epoxy, hybrid or polyester topcoat.

The use of POLITHERM 24 W-Zn as a primer in double layer coating systems requires special care at application and baking. Verify Technical Data Sheet.

Painting scheme - Liquid Coatings

System N°	ISO 12944 Classification	Environment	Coating System	Function	Total Dry (µm) *	Drying at 25°C (h)	Overcoating at 25°C	Theoretical coverage (m²/l) **	Durability Expectation ISO 12944
1	C1 - very low C2 - low	Internal External	1 Coat AL CVD 121 - 35 µm	Alkyd Primer Topcoat	35	24	min. 5h \ máx. 24h	14,30	Low (up to 5 years)
2		Internal External	1 Coat AL CVP 115 - 50 µm	Alkyd Primer	100	4	min. 5h \ máx. 24h	9,00	Medium (from 5 up to 15 years)
			1 Coat AL SRA 111- 50 µm	Alkyd Topcoat		24	min. 12h \ máx. 48h	8,00	
3	C3 - medium	Internal	1 Coat EP CVD 322 - 160 µm	Epoxy Primer Topcoat	160	4	min. 4h \ máx. 24h	5,00	Medium (from 5 up to 15 years)
			1 Coat EP ERP 322 - 120 µm	Epoxy Primer	170	4	min. 4h \ máx. 6 meses	6,66	
		External	1 Coat PU HPA 501 - 50 µm	Polyurethane Topcoat		6	min. 8h \ máx. 48h	11,20	
4	C4 - high	Internal	1 Coat EP ERP 322 - 120 µm	Epoxy Primer	240	4	min. 4h \ máx. 6 meses	6,66	Medium (from 5 up to 15 years)
			1 Coat EP CVD 322 - 120 µm	Epoxy Primer Topcoat		4	min. 4h \ máx. 24h	6,66	
		External	1 Coat EP ERP 322 - 200 µm	Epoxy Primer	250	4	min. 4h \ máx. 24h	4,00	
			1 Coat PU HPA 501 - 50 µm	Polyurethane Topcoat		6	min. 8h \ máx. 48h	11,20	
5		Internal	1 Coat EP ZSP 315 N1277 - 60 µm	Zinc Rich Epoxy Primer	240	3	min. 3h \ máx. 30días	9,33	High (over 15 years)
			1 Coat EP CVD 322 - 180 µm	Epoxy Primer Topcoat		4	min. 4h \ máx. 24h	4,44	
		External	1 Coat EP ZSP 315 N1277 - 60 µm	Zinc Rich Epoxy Primer	240	3	min. 3h \ máx. 30días	9,33	
			1 Coat EP ERP 322 - 130 µm	Epoxy Primer		4	min. 4h \ máx. 6 meses	6,15	
			1 Coat PU HPA 501 - 50 µm	Polyurethane Topcoat		6	min. 8h \ máx. 48h	11,20	
6	C5-I	Internal	1 Coat EP ZSP 315 N1277 - 60 µm	Zinc Rich Epoxy Primer	240	3	min. 3h \ máx. 30 días	9,66	Medium (from 5 up to 15 years)
			1 Coat EP 89 PW - 180 µm	Epoxy Primer Topcoat		4	min. 4h \ máx. 24h	4,61	
		External	1 Coat EP ZSP 315 N1277 - 60 µm	Zinc Rich Epoxy Primer	240	3	min. 3h \ máx. 30días	9,66	
			1 Coat EP 89 PW - 130 µm	Epoxy Primer		4	min. 4h \ máx. 6 meses	6,38	
			1 Coat PU HPA 501 - 50 µm	Polyurethane Topcoat		6	min. 8h \ máx. 48h	11,20	
7		Internal	1 Coat EP N2630 - 100 µm	Epoxy Primer	300	8	min. 8h \ máx. 48h	8,10	
			1 Coat EP N2628 - 200 µm	Epoxy Topcoat		4	min. 16h \ máx. 48h	4,10	
		External	1 Coat EP N2630 - 120 µm	Epoxy Primer	300	8	min. 8h \ máx. 48h	6,75	
			1 Coat EP N2630 - 120 µm	Epoxy Primer		8	min. 8h \ máx. 48h	6,75	
1 Coat PU N2677 - 60 µm		Polyurethane Topcoat	8	min. 8h \ máx. 48h	10,83				
8	C5-M	Internal	1 Coat EP 89 PW - 150 µm	Epoxy Primer Topcoat	300	18	min. 8h \ máx. 48h	5,53	Medium (from 5 up to 15 years)
			1 Coat EP 89 PW - 150 µm	Epoxy Primer Topcoat		18	min. 8h \ máx. 48h	5,53	
		External	1 Coat EP 89 PW - 250 µm	Epoxy Primer Topcoat	300	18	min. 8h \ máx. 48h	3,32	
			1 Coat PU HPA 501 - 50 µm	Polyurethane Topcoat		6	min. 8h \ máx. 48h	11,20	
7	C5-M	Internal	1 Coat EP N1277 - 65 µm	Zinc Rich Epoxy Primer	365	4	min. 16h \ máx. 48h	10,00	High (over 15 years)
			1 Coat EP N2630 - 100 µm	Epoxy Primer		8	min. 8h \ máx. 48h	8,10	
			1 Coat EP N2628 - 200 µm	Topcoat Epóxi		8	min. 16h \ máx. 48h	4,10	
		External	1 Coat EP N1277 - 65 µm	Zinc Rich Epoxy Primer	330	8	min. 8h \ máx. 48h	10,00	
			1 Coat EP N2630 -200 µm	Epoxy Primer		8	min. 8h \ máx. 48h	4,10	
			1 Coat PU N2677 - 65 µm	Polyurethane Topcoat		8	min. 8h \ máx. 48h	10,00	

Galvanized

System N°	Coating System	Function	Total Dry (µm) *	Drying at 25°C (h)	Overcoating at 25°C	Theoretical coverage (m²/ℓ) **
1	1 Coat PU SRD 501 - 80 µm	Polyurethane Topcoat	80	4	min. 12h \ máx. 48h	6,50
2	1 Coat EP GNP 415 - 20 µm	Adhesion Epoxy Primer	85	0,5	min. 8h \ máx. 48h	22,50
	1 Coat PU N2677 - 65 µm	Polyurethane Topcoat		8		10,00

Painting scheme - Powder Coatings

System N°	ISO 12944 Classification	Environment	Coating System	Function	Total Dry (µm) *	Durability Expectation ISO 12944
1	C1 - very low \ C2 - low	Internal	1 Coat POLITHERM 20 or 22 - 70 µm	Hybrid System	70	Low (up to 5 years)
		External	1 Coat POLITHERM 26 or 27 - 70 µm	Polyester System	70	
2		Internal	1 Coat POLITHERM 50 HB - 120 µm	Hybrid System	120	Medium (from 5 up to 15 years)
		External	1 Coat POLITHERM 56 HB - 120 µm	Polyester System	120	
3		Internal	1 Coat POLITHERM 54 HB - 160 µm	Epoxy System	160	High (over 15 years)
		External	1 Coat POLITHERM 54 HB - 110 µm	Epoxy System	170	
			1 Coat POLITHERM 26 or 27 - 60 µm	Polyester System		
4	C3 - medium	Internal	1 Coat POLITHERM 24 - 80 µm	Epoxy System	160	Medium (from 5 up to 15 years)
				1 Coat POLITHERM 20 or 22 - 80 µm		
		External	1 Coat POLITHERM 24 - 80 µm	Epoxy System	160	
				1 Coat POLITHERM 26 or 27 - 80 µm		
5		Internal	1 Coat POLITHERM 54 HB - 100 µm	Epoxy System	200	High (over 15 years)
				1 Coat POLITHERM 54 HB - 100 µm		
		External	1 Coat POLITHERM 54 HB - 160 µm	Epoxy System	220	
				1 Coat POLITHERM 26 or 27 - 60 µm		
6	C4 - high	Internal	1 Coat POLITHERM 54 - 120 µm	Epoxy System	200	Medium (from 5 up to 15 years)
				1 Coat POLITHERM 20 or 22 - 80 µm		
		External	1 Coat POLITHERM 54 - 120 µm	Epoxy System	200	
				1 Coat POLITHERM 26 or 27 - 80 µm		
7	C5-I - very high (industrial)	Internal	1 Coat POLITHERM 54 HB - 140 µm	Epoxy System	280	Medium (from 5 up to 15 years)
				1 Coat POLITHERM 54 - 140 µm		
		External	1 Coat POLITHERM 54 HB - 140 µm	Zinc Epoxy System	280	
				1 Coat POLITHERM 56 - 140 µm		
8	C5-M - very high (offshore)	Internal	1 Coat POLITHERM 24 W-Zn - 80 µm	Zinc Epoxy System	240	Medium (from 5 up to 15 years)
				1 Coat POLITHERM 54 - 160 µm		
		External	1 Coat POLITHERM 24 W-Zn - 80 µm	Zinc Epoxy System	240	
				1 Coat POLITHERM 56 - 160 µm		

* Total thickness - Consider dry film thickness.
** Theoretical Coverage - The values presented in theoretical coverage refer to the coverage without any loss, referred to the coatings systems presented in this brochure.

* Total thickness - Consider dry film thickness.

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The values are subject to change without prior notice.

The information contained is reference values.