

MINING SOLUTIONS

High-performance
protection for
highly demanding
environments

Industrial Motors
Commercial & Appliance
Motors
Automation
Digital & Systems
Energy
Transmission &
Distribution
Coatings



Driving efficiency and sustainability



ASSET PROTECTION IN HIGHLY DEMANDING ENVIRONMENTS

Mining supports essential supply chains across the global economy. From the steel in structures to the copper in electrical systems, it all starts here. To keep these operations running, structures, equipment, and surfaces must perform reliably over time.

WEG Coatings develops and manufactures high-performance industrial coatings for severe environments, offering a complete portfolio ranging from anticorrosive primers to coatings for high-temperature, chemical-resistant, and high-build applications.

With a national and international presence, WEG provides protection systems specified according to the environment, substrate, and application conditions.



Operating conditions in mining

Mining operations take place in highly aggressive environments characterized by the combination of constant moisture, mineral dust, chemical agents, temperature fluctuations, and continuous mechanical stress. These conditions accelerate degradation processes and require protection systems with proven performance.

Accelerated corrosion

Environments classified from C3 to C5+ according to ISO 12944, with constant exposure to moisture, solid particles, and chemical mists.

Abrasion and chemical agents

Continuous contact with mineral slurries, acids, alkalis, and process solutions.

Thermal cycling

Equipment exposed to temperature variations and continuous-duty operation.

Field maintenance

Applications carried out under non-ideal conditions, where time, access, and surface preparation are limited.

Traffic and mechanical impact

Floors and structures subjected to heavy loads, constant wear, and operational stress.

Regulatory requirements

Projects requiring compliance with national and international technical standards.

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Service life exceeding 20 years in highly aggressive environments

WEG systems are based on two complementary mechanisms:

Physical barrier → Substrate isolation

Galvanic protection → Metallic zinc action

System composition varies according to:

- Environmental aggressiveness level
- Substrate type
- Application conditions
- Maintenance requirements

Anticorrosive systems for steel structures and fixed equipment

Overhead cranes, conveyor belt supports, walkways, silos, and containment structures are critical mining assets. Continuously exposed to environments classified from C3 to C5 according to ISO 12944, they are subject to the combined effects of moisture, mineral dust, reagent mists, and temperature fluctuations. Under these conditions, anticorrosive protection must maintain long-term performance, reducing interventions and unplanned shutdowns.

Primer

W-POXI ERP 322

Two-component polyamide epoxy primer

High-build, single-coat epoxy primer formulated with zinc phosphate anticorrosive pigments. It acts as the foundation of the anticorrosive system.

- Volume solids: $80 \pm 2\%$
- Dry film thickness: 120–200µm
- Recoating (25°C / 77°F): 4 hours to 6 months
- Pot-life: 3 h
- Maximum temperature: 120°C / 248°F

W-POXI BLOCK HPP 402

Novolac epoxy primer

High-build, high-solids primer pigmented with aluminum. Tolerant of surfaces prepared by manual or mechanical cleaning.

- Volume solids: $85 \pm 3\%$
- Dry film thickness: 120–30µm
- Recoating (25°C / 77°F): 4 hours to 24 months
- Pot-life: 1 h 30 min
- Maximum temperature: 220°C / 428°F

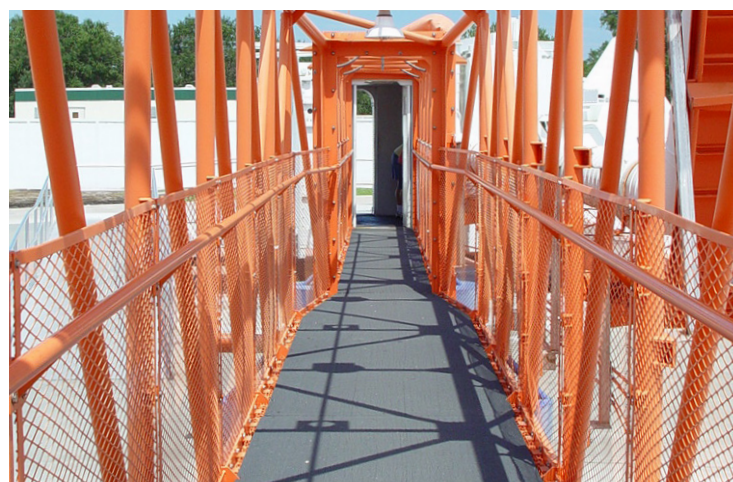
Galvanic protection

W-POXI ZSP 315 N1277

Zinc-rich epoxy primer

Galvanic cathodic protection. Recommended for extremely aggressive environments.

- Volume solids: $63 \pm 2\%$
- Touch dry: 30min
- Dry film thickness: 50–100µm
- Standard: Petrobras N 1277 SSPC P20





Simplified systems

WEGPOXI CVD 323

Primer + topcoat (dual function)

Single-coat application formulated with anticorrosive pigments. Recommended for maintenance projects with short shutdown periods.

- Volume solids: 75 ± 5%
- Dry film thickness: 100–300µm
- Touch dry: 1h
- Maximum temperature: 120°C / 248°F

W-POXI BLOCK GFD 362

Primer + topcoat (dual function)

High-build, single-coat application formulated with anticorrosive pigments. Recommended for maintenance projects with short shutdown periods.

- Volume solids: 95 ± 2%
- Dry film thickness: 240–500µm
- Touch dry: 3h
- Maximum temperature: 200°C / 392°F

Adhesion to special substrates

W-POXI GNP 415

Adhesion primer

Recommended for galvanized steel, aluminum, and non-ferrous substrates.

- Volume solids: 25 ± 3%
- Dry film thickness: 20–30µm
- Touch dry: 10min
- Pot-life: 4h

Topcoat

WEGTHANE HPA 501

Aliphatic acrylic polyurethane

Excellent color and gloss retention, weathering resistance, and exterior durability.

- Dry film thickness: 50–70µm
- Dry to handle: 8h
- Maximum temperature: 90°C / 194°F

Solutions for high-temperature equipment

Rotary kilns, boilers, dryers, heat exchangers, and steam pipelines operate under temperature conditions that compromise conventional coatings. Under these conditions, failure of the protection system is not progressive. It may occur rapidly, exposing the substrate and requiring corrective maintenance. The appropriate protection system must provide thermal stability, adhesion, and chemical resistance compatible with the operating conditions.

Systems for continuous operation from 150°C to 350°C (302°F to 662°F), with peaks up to 600°C (1112°F)

The system specification considers:

- Continuous operating temperature
- Thermal cycling and wet/dry cycles
- Substrate type
- Maintenance requirements



Solutions for different temperature ranges, providing anticorrosive protection and high-temperature performance.



Extreme high temperature

W-TERM HPA 660

Single-component modified silicone

Recommended for equipment exposed to high temperatures, such as furnaces and chimneys.

- Maximum temperature: 600°C / 1112°F
- Continuous service 150–350°C (302°F to 662°F)
- Dry film thickness: 20–25µm
- Dry to handle (25°C / 77°F): 30min

High-temperature primer

ZINC ETHYL SILICATE N 1661

Inorganic zinc-rich primer

Anticorrosive protection with high thermal resistance and fast drying.

- Maximum temperature: 500°C
- Touch dry (25°C / 77°F): 14min
- Dry film thickness: 70–80µm
- Volume solids: 52 ± 2%
- Standard: Petrobras N 1661 · SSPC P20

Chemical + temperature

W-FENOXI ATD 362

Two-component novolac epoxy

Recommended for environments combining high temperatures and chemical exposure.

- Operating temperature: up to 220°C / 428°F
- Volume solids: 88 ± 2%
- Dry film thickness: 100–200µm
- Pot-life: 2h

Moderate temperature

W-TERM HPD 364

Phenolic epoxy

Recommended for equipment operating at elevated temperatures requiring anticorrosive protection.

- Operating temperature: up to 230°C / 446°F
- Dry film thickness: 100–200µm
- Volume solids: 72 ± 2%
- Maximum substrate temperature: 80°C / 176°F

Coatings for tanks, containment basins, and tailings facilities

Mining reagent management involves highly aggressive substances, including sulfuric acid, sodium hydroxide, flotation fluids, leaching solutions, and process effluents. Assets used to store and transport these materials require protection systems that act as chemical barriers, preserving their integrity over time and reducing the risk of progressive degradation. In these applications, coating failure compromises operations and may pose risks to the process.

High chemical resistance and low permeability

The system specification considers:

- Chemical agent type
- Concentration and temperature
- Exposure time
- Application conditions





Two-component epoxy

WEG FENOXI

Two-component phenolic novolac epoxy

Recommended for tanks and pipelines exposed to aggressive chemical agents.

- Volume solids: 76 ± 2%
- Dry film thickness: 100–150µm
- Pot-life: 3h
- Certifications: FDA, RDC 51/52, GM/MS 888

High build

W-FENOXI HT

Phenolic novolac — high build

Allows higher film build per coat, reducing application stages.

- Volume solids: 76 ± 2%
- Dry film thickness: 280–320µm
- Pot-life: 3h

Epoxy finishing primer

WEGPOXI WET SURFACE 88 HT

High-build polyamine epoxy with anti-corrosive pigmentation

Developed for application on dry, wet and hydro-jetted surfaces.

- Volume solids: 85 ± 2%
- Dry film thickness: 160–500µm
- VOC: 3.62 g/l
- Pot-life: 1 h 30 min at 25°C / 77°F
- Certifications and Standards: NORSOK M-501, IMO MSC.215(82), GM/MS 888

Certified product

WEG TAR FREE WT

Epoxy coating for potable water and effluents

High-build protection with regulatory certifications.

- Dry film thickness: 200–1,000µm
- Substrates: Steel and Concrete
- Standards: AWWA C-210-15, ANVISA Resolution No. 105, GM/MS Ordinance No. 888, Sabesp NTS 036

Elastomeric coatings



Elastomeric coatings enable high-build application with fewer coats while maintaining flexibility, mechanical resistance, and anticorrosive protection. They are recommended for structures exposed to impact, abrasion, and structural movement.

High film build with fewer application stages

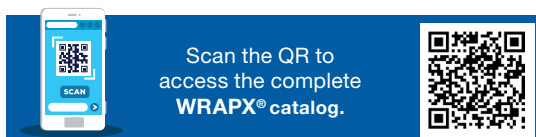
WRAPX® HBD 332

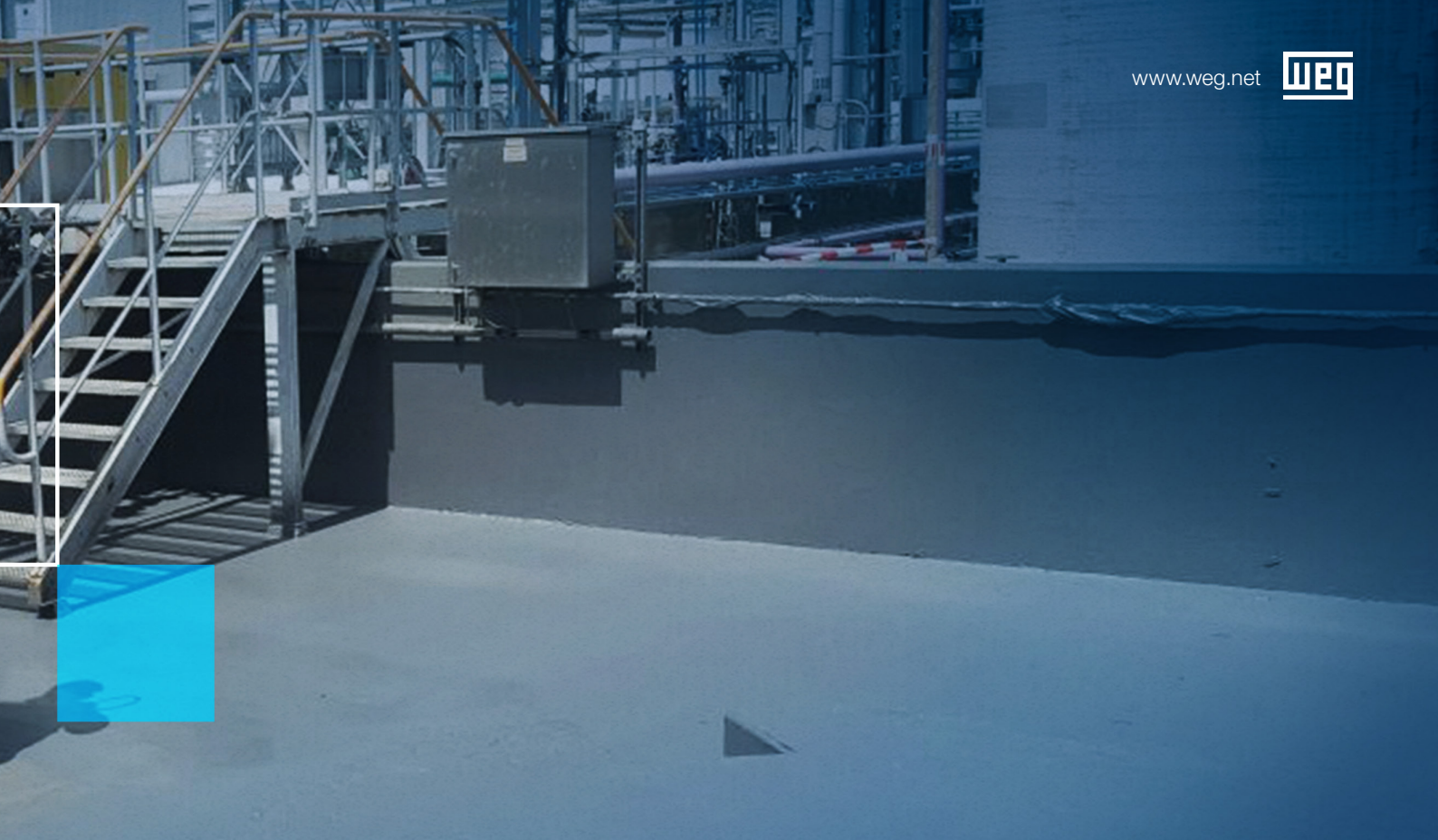
Flexible epoxy coating

- Volume solids: 99%
- Dry film thickness: 400–8,000µm
- VOC: 9.84 g/l
- Elongation: 22%

Applications

- Piping
- Industrial floors
- Metal structures
- Containment areas





Polyurea-based coatings

Coatings offering high elasticity, complete waterproofing, and excellent chemical and mechanical resistance. Recommended for applications with demanding operating conditions and continuous exposure to aggressive agents.

POLYPROOF LINE

- Max Pure — mechanical and abrasion resistance
- Max HI 55 — anti-slip finish
- Max Pure SL — chemical protection

Applications

- Tailings basins
- Industrial floors
- Chemical areas
- Tanks



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The scope of WEG Group solutions is not limited to the products and solutions presented in this brochure.

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