



elcozin

eco-friendly low carbon zinc coating

Room Temperature Curing Zinc Flake Coating Technology
for Large Steel Structures

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elcozin Elcozin Carbon Reduced Guardrail



elcozin Characteristics

The ceramic film and zinc flakes in the laminated structure effectively prevent the penetration of corrosive factors (salt) and improve the shielding power, so it has excellent corrosion performance. Especially, it has excellent corrosion performance under marine corrosion conditions, so it is suitable for large structures such as sound barriers, traffic light poles, and lighting towers in coastal areas that are highly affected by seawater, and it is a technology with better performance than hot-dip galvanizing or hot-drying ZFC (350°C * 30min).

- Air-drying coating can be applied to steel structures of any size or location.
- It is an eco-friendly product without harmful VOCs and heavy metals and does not contain Cr6+ or Cr3+.
- Natural drying metal coating technology can be applied to large-sized products for the first time.
- After coating, the film is formed by air drying at room temperature, which saves energy costs for drying.
- For materials that require double-sided coating, it is efficient to use '1 side spray > 5 minutes wipe drying > 2 side spray > drying'. If quick packaging is required, it can be packaged after heat drying at 120°C for 2 minutes.
- It has corrosion resistance performance of SST 1000hr or more with a thin film of 20~30µm.
- It is a unique technology that uses chemical pretreatment rather than physical pretreatment.



elcozin Facility and Carbon Reduction Guardrails



Automating processes with robots



Chemical Pretreatment Systems



Facilities with large product loading capacity



Top and bottom coating booths



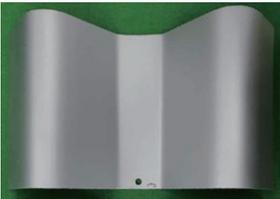
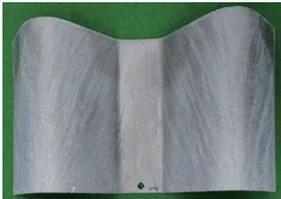
Short thermal drying times(120°C 2min)



Carbon Reduction Innovations Guardrail

Kemp's elcozin facility has built an automated system for loading and unloading using robots, and has enhanced productivity and accuracy, strengthening its product capabilities and technology. With technology and know-how accumulated over many years, we have coating technology for various products and provide optimized solutions to meet customer needs with thorough quality control and excellent technology.

elcozin Corrosion Resistance

Salt Spray Test (SST) 1,000hr				
Type	Before	240hr	480hr	1,000hr
elcozin 20 μ m				
Hot-dip galvanizing 80 μ m				

Test method : [ASTM B 117] Salt Spray(35°C, 5% NaCl)

No abnormality after 1,000 hours of SST for elcozin, while red rust occurs from 240 hours for hot-dip galvanizing, showing a clear difference in corrosion performance. Even with a 20 μ m thin film, the material protection ability is very high due to the double method effect of corrosion factor blocking and sacrificial anode method, and the film layer of elcozin inhibits zinc activation and zinc elution, which improves the service life by more than 3 times.

elcozin Applications



Sports fields



Transmission towers



Guardrails



Railroad supports



Wind turbines



Harbor docks



Bridge and road works



Solar power

The elcozin metal paint technology is a room temperature drying Zinc Flake Coating technology that can be applied to large-sized products for the first time.

Compared to other ZFC technologies, which are difficult to apply to large products because they cannot be applied outdoors, and have the disadvantage of high carbon emissions due to heat drying at temperatures over 350°C for more than 30 minutes, Kemp's elcozin technology has excellent workability and corrosion resistance.



Headquarters, 4th floor, 144 Seongan-ro, Jung-gu Ulsan-si 44420
Ulsan Plant, 87 Hyomun2-ro, Buk-gu Ulsan-si 44252
Tel. 052-289-1155 Fax. 052-289-1157 Email. kempkorea@naver.com
www.kempkorea.com

