

# KRONPHOS®

anticorrosive pigments



**MODERN  
CORROSION  
PROTECTION  
TECHNOLOGY**

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## About company

The Zavod Kronakril® LLC is the main Russian producer zinc phosphate-based corrosion-inhibiting additive for the paint and coating industry.

Manufacture is located in the center of the European part of Russia, 250 km far from Moscow.

The Zavod Kronakril® LLC was founded in 2003. The main line of activities is production of anti-corrosion pigments and water-based paints and varnishes. Subsequently, the focus was shifted towards the anti-corrosion pigments.

In 2018, the production technology of corrosion-inhibiting additive was improved and a new product was developed under the KRONPHOS® trademark.

This is the most modern product, adapted for both Russian market and for export.



## ZINC PHOSPHATE

### Description

Zinc phosphate-based corrosion-inhibiting additive is a white synthetic inorganic pigment intended for manufacturing of anticorrosive paints and varnishes based on alkyd, epoxy, acrylic resins, water-borne as well solvent-borne.

### Properties:

Non-toxic, environmentally friendly.

Being free of unwanted color, the product can be used in primers and ground coats of any color.

When applying for a painting system, the product does not cause side effects.

When a zinc phosphate coating composition is applied on the metal surface, a protective layer is created on the substrate surface, which interacting with oxygen creates phosphate complex that protects the metal from rusting.

Unlike organic corrosion inhibitors, the film coating exhibits a lasting anti-corrosion effect.

### Application:

It is suitable for paints, resins, epoxy resins, polyurethanes, amino acids, acrylates, and rubber. Due to its low refractive power, it can be used to finish paints and primers. Easy color bendability. Good corrosion resistance.



## KRONPHOS PZ

The zinc phosphate of the PZ brand has established itself as a reliable anti-corrosion product. High zinc content allows you to add less pigment to obtain excellent anticorrosive properties of your products. The color brightness of 99% confirms the purity of our product and enables to use the anti-rust pigment of the PZ brand in more complex and responsible compositions of your production.

Unlike organic corrosion inhibitors, the film coating exhibits a lasting anti-corrosion effect.

## KRONPHOS PZA

KRONPHOS PZA is a zinc and aluminum orthophosphate with improved phosphate loading. This leads to a controlled increase of the inhibiting water-soluble content and, consequently, to a better formation of protective layers on the metal surface.

## KRONPHOS PZC

KRONPHOS PZC zinc phosphate contains an optimal ratio of zinc, phosphorus and calcium and is in great demand with consumers. It is used for the manufacture of corrosion-resistant materials to provide long-term protection against corrosion.

## KRONPHOS PZM

The product of the KRONPHOS PZM brand is a basic zinc molybdenum orthophosphate hydrate. It has increased impedance to corrosion current, both anionic, and cationic properties. It contains at least 1.2% molybdate ion.

## KRONPHOS CP

### Description:

Calcium phosphate is an inorganic white pigment; it is used in paints and varnishes to improve anti-corrosion properties and adhesion strength. Due to the lamellar structure of the pigment particles, the barrier-layer effect of the coating is enhanced on the anode area.

### Properties:

- Non-toxic, environmentally friendly product
- Effective corrosion resistance
- No emission of toxic gases when covered with steel plates for welding
- Quick drying and excellent water resistance
- Low requirements to the surface to be covered
- Strong bond between the paint and the surface
- Good retention on the base in form of coating

### Application:

It is suitable for paints, resins, epoxy resins, polyurethanes, amino acids, acrylates, rubber. Due to low refractive power it can be used for finishing paints and primers. Easy colour bendability. Good corrosion resistance.



TYPICAL DATA	TYPICAL VALUE					TEST METHOD
	KRONPHOS PZ	KRONPHOS PZA	KRONPHOS PZC	KRONPHOS PZM	KRONPHOS CP	
Loss on ignition 600°C (%)	7,5-13,0	7,5-13,0	7,5-13,0	7,5-13,0	5,0-12,0	ISO 6745
Zn content, %	45,0-52,0	35,0-40,0	34,0-40,0	45,0-52,0	-	ISO 6745
PO4 content, %, min	45	40	40	40	50	ISO 6745
Al content, %	-	4,0-5,5	-	-	-	Complexometric titration
CaO content, %	-	-	40,0-45,0	-	30,0-40,0	Complexometric titration
MoO3 content, %	-	-	-	1,2-2,0	-	Photometric determination
Water-soluble chloride, %, max	0,025	0,025	0,025	0,025	0,025	ISO 787/13
Water-soluble sulphate, %, max	0,05	0,05	0,05	0,05	0,05	ISO 787/13
Pb content, ppm, max	10	10	10	10	10	ICP
Cd content, ppm, max	10	10	10	10	10	ICP
pH value	6-8	6-8	6-8	6-8	6-8	ISO 787/9
Density g/cm <sup>3</sup> , min	3,3	3,3	3,3	3,3	3,3	ISO 787/10
Oil absorption g/100g, max	30	40	30	30	40	ISO 787/5
Sieve residue (45 μm), max	0,05	0,05	0,05	0,05	0,05	ISO 787/7
Bulk density g/cm <sup>3</sup>	0,5-0,8	0,5-0,8	0,5-0,8	0,5-0,8	0,5-0,8	ISO 787/11
Average particle size, microns	3,0-6,0	3,0-6,0	3,0-6,0	3,0-6,0	3,0-6,0	Multisizer

## Why choose Zavod Kronakril

<b>DIRECT MANUFACTURER</b>	<b>STRICT COMPLIANCE WITH SHIPPING GRAPHICS</b>
«Zavod Kronakril» independently produces and sells its products. For the implementation of small volumes used dealer network.	Together with the consumer, we determine the time of manufacture and the date of shipment of products.
<b>FLEXIBLE PRICE POLICY</b>	<b>ORGANIZATION OF EXITING SPECIALIST</b>
Depending on the order quantity and seasonality, there is a flexible pricing policy.	For all customers we provide free advice on the use of pigments.
<b>ACCEPTABLE PAYMENT TERMS</b>	<b>QUALITY ASSURANCE</b>
We can provide a permanent multi-year consumer a deferment of payment, as well as a partial prepayment option.	For 15 years, the production of pigments has reached a high level of quality, which is confirmed by official documents.
<b>ANY FORM OF PRODUCT DELIVERY</b>	<b>INDIVIDUAL APPROACH TO THE CUSTOMER</b>
We are ready to take on all the issues of delivery of pigments to the consumer by any convenient mode of transport. «Zavod Kronakril» guarantees delivery of products on time designated by the buyer.	«Zavod Kronakril» can produce pigments to order, with the necessary characteristics, based on the agreed product specifications.



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