# KRONPHOS® anticorrosive pigments



MODERN
CORROSION
PROTECTION
TECHNOLOGY



# About Company

Zavod Kronakril® LLC is a leading manufacturer of zinc phosphate-based corrosion inhibiting additives within paint and coatings industry. The manufacture is in European Russia, 250 km away from Moscow.

The history of Zavod Kronakril began in 2003 with a small company focused on production of anti-corrosion pigments, iron oxide pigments and water-based paints production. One of the main objectives was minimization of the environmental impact in terms of toxicity.

Subsequently, the company's status transformed into Zavod Kronakril® LLC. Since 2010, the focus had shifted towards the production of anti-corrosion pigments, supported by a constant process of technology innovation.

In 2018, production technology of corrosion-inhibiting additives was improved. Several zinc phosphate modifications were developed in order to improve parameters of the product for various clients' needs. The new production line was registered under KRONPHOS® trademark.

Further development included registration of the REACH certificate, which proves quality of Zavod Kronakril's products for the European Union purposes. Since then, the company has been actively looking for partners outside Russia.





# About Company

Annual turnover: 7 000 000 Euro

Employees: 70 people

World presence: Poland, Serbia, Belarus, Kazakhstan

Headquarters: Zavod Kronakril, Yaroslavl, Russia





# Products ZINC PHOSPHATE

### **Description:**

Zinc phosphate – based corrosion inhibiting additive is a white synthetic inorganic pigment created for manufacturing anticorrosive paints and varnishes based on alkyd, epoxy, acrylic resins, water-borne as well as solvent-borne. Interacting with oxygen it creates a phosphate-based complex which protects metal from rusting.

#### **Properties:**

- Non-toxic
- Free of unwanted color
- Can be used in primers and ground coats of any color
- When combined with a painting system, the product does not cause unwanted side effects
- Creates protective layer on a metal substrate
- Unlike organic corrosion inhibitors, the film coating exhibits a lasting anticorrosive 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.



# Description

# KRONPHOS PZ

**REACH** certified

Zinc phosphate of PZ class has established itself as a reliable anticorrosive product. High zinc content allows adding less pigment to obtain excellent anticorrosive properties of paint and coatings. The color brightness of 99% proves purity of the product and enables to use the anti-rust pigment of PZ class in more complex compounds. Unlike organic corrosion inhibitors, the film coating exhibits a long-lasting anticorrosive effect.

## KRONPHOS PZC

#### REACH certificate on demand

KRONPHOS PZC zinc phosphate contains an optimal ratio of zinc, phosphorus and calcium. Presence of an additional element in the formula is proven to provide long-term protection against corrosion.

## KRONPHOS PZM

### REACH certificate on demand

The product of KRONPHOS PZM class 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 PZA

### REACH certificate on demand

KRONPHOS PZA is a zinc and aluminum orthophosphate with improved phosphate loading. It allows to achieve a controlled increase of inhibiting water-soluble content and, consequently, better formation of protective layers on various metal surfaces.



# KRONPHOS CP

### **Description:**

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

### **Properties:**

- Non-toxic, does not contain heavy metals and compounds
- Effective corrosion resistance
- No emission of toxic gases when covered with steel plates used for welding
- Quick drying and excellent water resistance
- Low requirements to a surface to be covered
- Strong bond between paint and a surface
- Good retention on a 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 color bendability. Good corrosion resistance.





TYPICAL DATA	TYPICAL VALUE					
	KRONPHOS PZ	KRONPHOS PZA	KRONPHOS PZC	KRONPHOS PZM	KRONPHOS CP	TEST METHOD
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/cm3, 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 u m), max	0,05	0,05	0,05	0,05	0,05	ISO 787/7
Bulk density g/ cm3	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, mi crons	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

DIRECT MANUFACTURER	STRICT COMPLIANCE WITH SHIPPING SCHEDULES		
Zavod Kronakril LLC company independently produces and sells its products. For smaller volumes dealer networks are utilized.	After discussing with a client, we create and strictly follow a schedule for products manufacture and shipping.		
EXPEDIENT PRICING POLICY	CUSTOMER SUPPORT		
Depending on order volumes and seasonality, prices are flexible.	For all customers we provide free advice on the use of our products.		
FLEXIBLE PAYMENT TERMS	QUALITY GUARANTEE		
We can provide deferment of payment to a permanent multi-year consumer, as well as partial prepayment options.	Throughout 15 years of constant innovation, the company has gained expertise to provide the highest level of product quality, which is proved by official documents.		
EFFECTIVE LOGISTICS	INDIVIDUAL APPROACH TO EVERY CLIENT		
Zavod Kronakril® LLC guarantees delivery of products on time designated by a client. Any logistical issues are solved by the company.	Zavod Kronakril® LLC can produce anticorrosives with all necessary characteristics, based on agreed product specifications.		



# Company management



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