

NEW UNTOXIC PIGMENTS FOR ANTICORROSION PRIMERS

The new technology of production of high efficiency anticorrosion pigments with properties of rust converter based on Ukraine raw – fruit stone waste of peach, apricot, walnut shell ets.



Designation

New fillers are belonging to the group of functional organic pigment, which inhibit the corrosion of ferrous metals. They are used as corrosion protective additives into various paints varnish made from various polymeric matters (resins).

In the depending of the dosage they can be used for manufacture of:

- primers and coatings for the rusted surface;
- anticorrosion prime coating for clean metal surfaces.

Properties

Provide the increase of adhesion of the paint compositions, which coated on rusted metal surfaces with the layer of corrosion products up to 100 μm thickness. Pigments retard the corrosive processes on metal surface.

In combination with other anticorrosion pigments (borates, phosphates etc) they strengthen protective effect (due to a synergism of joint action) and promote properties of the paint coatings.

Condition of application

The anticorrosion pigments in the amount of 7% are used in paint and varnish coatings for painting of metallic surfaces with layer of corrosion products by a thickness up to 100 μm . The concentration of pigments can be reduced to 1-3% for the primers for painting of clean surface or metal with the thin layer of corrosion products. It is possible to reduce the amount of other anticorrosion pigments in the compound of paint material.

Examples of primer application

Pigments were successfully applied at the anticorrosion protection of an equipment and metal structures of different enterprises, such as Hmel'nitski and Rovno nuclear power stations, Western electropower systems, Kerch marine port, State enterprise of «Resin», JSC «Bromium» and other.

PRESERVATION COMPOUND FOR TEMPORAL ANTICORROSION PROTECTION OF ROLLED METAL

The effective preservative compound was developed from environmental friendly vegetable raw of domestic food industry.

Designation

Intended for the temporal protection of rolled metal (as well as for polished, etched surfaces and one with a rolling scale) against atmospheric corrosion on the term of storage and transportation.

Anticorrosion protection of rolled metal would be made on the final stage of technological process of rental production.

Condition of application

May be applied:

- by the method of dipping (1-2 minutes) in solution of preservation composition
- by dispersion of solution in the tailing of rolling mill,
- by painting.

Air dried.

It is recommended to apply preservation composition as water solution by concentration 3 – 5 %.



Properties

Compound is water soluble. The removal after application is not necessary.

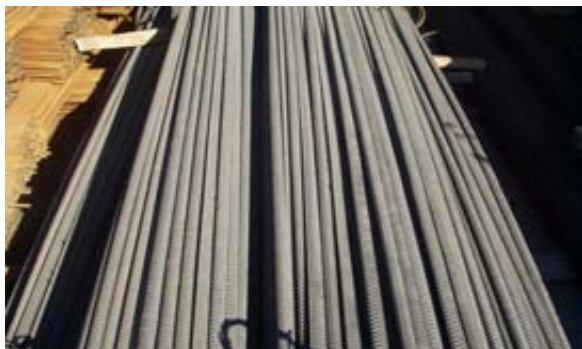
The guarantee term of protection in the atmosphere conditions makes to 2 – 3 months.

Storage and transportation of rolled metal after anticorrosion treatment can be made in outside court and in the conditions of marine climate.

Average cost of anticorrosion treatment makes to 2 USD per ton.

Experiment of application

The pilot tests of efficiency of preservation composition were made for rebar protection. State of surface of rebar after 1 month of exposition in marine port «South»:



with covering



without covering