

Condorfos KZ 55

Nickel-free microcrystalline zinc phosphating process

General Information

Condorfos KZ 55 is usually used for the pretreatment of carbon steel rods, before cold forming. Mainly used in drawing and cold heading of carbon steel rods.

Characteristics of the conversion coating

The obtained phosphatic coating has a crystallography typically acicular with a weight between 10 and 15 g/m².

Products for preparing and replenishing of the working bath

- Condorfos KZ 54 F : Make-up
- Condorfos KZ 55 A : Replenishing
- Accelerator : Accelerator of the process

Preparation of the bath

The bath is prepared with Condorfos KZ 54 F. For each 1000 lt of bath, 140 kg of Condorfos KZ 54 F are needed. The so prepared bath has a total acidity point of 55 ml.

Before start working add the accelerator according to the instructions provided by our technicians

Working conditions

Condorfos KZ 55 is used in aqueous solution, by immersion, as follows:

Treatment time (minuted) : from 6 to 12
Working temperature (°C) : from 65 to 75

Control parameters of the phosphating bath

Total acidity ml : from 50 to 65
Ratio Total acidity/Fischer : from 1,7 to 2,2
Accelerator in the bath : from 0,2 to 0,25 g/l

Replenisher Condorfos KZ 55 A to keep constant the control parameters

The phosphating bath is kept in constant working by adding continuously Condorfos KZ 55 A. The reference parameter for calculation of the replenishing is the total acidity. For each point of total acidity consumed in respect to the fixed value, add for each 1000 l of bath kg. 1,55 di Condorfos KZ 55 A.

Preparation of the rod surface to the conversion treatment

Sequence of operations

- Degreasing with alkaline detergents, if oils or greases are present
- Washing with tap water
- Pickling or sandblasting to remove oxides
- Washing with tap water
- Washing with activating solution, when required by the specifications of the conversion cycle
- Phosphating with Condorfos KZ 55
- Washing with tap water
- Neutralization
- Eventual lubrication with soaps or polymers
- Drying

Specification of the composition of the material in contact with the solution of Condorfos KZ 55

The material must be antiacid; preferably AISI 316L

Warning / Safety

For transport, storage and handling, follow the regulations in force.

For more information, read the MSDS

Treatment of wastes

Follow the regulations in force