



CONVERT ZR

NANOTECHNOLOGICAL TREATMENT OF PREPAINTING

FEATURES:

CONVERT ZR It is a new method for preparing the surfaces for painting as an alternative to phosphating.

The product has a considerably reduced environmental impact as it is free of chromium and other heavy metals and contains a moderate phosphorus concentration.

In the wastewater it will thus have a phosphorus content of 20 to 100 times lower than that present using traditional phosphates.

The use of **CONVERT ZR** improves the adhesion of the paint and increases the corrosion resistance of the finished product.

It can be used indifferently either by spray or by immersion.

CONVERT ZR is used in the traditional three-stage wash tunnels; In this case, it is also necessary to combine the degreasing function by adding KEMPHOS AD WET.

For its use, generally, it doesn't require demineralized water, it is enough to simply water.

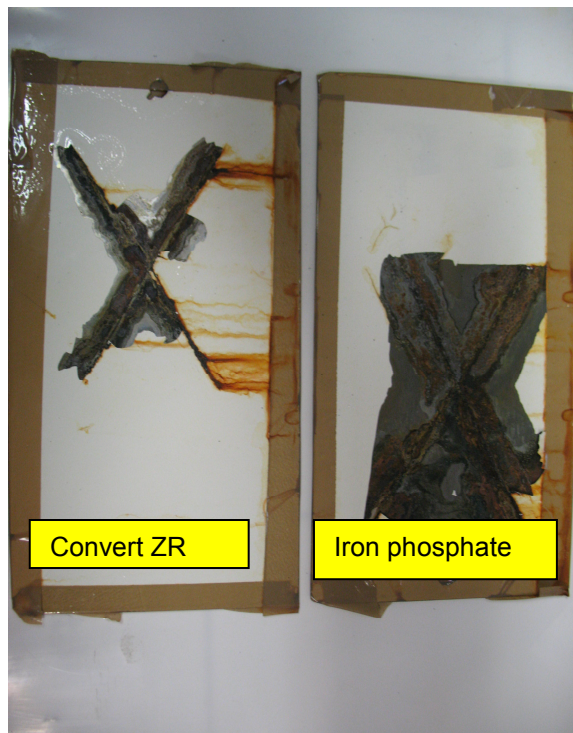
The conversion takes place both on CRS steel, galvanized steel (EG and HDG), aluminum and its alloys.

CONVERT ZR can be used at room temperature if its application is preceded by a step that involves alkaline degreasing (5 stage system).

A CONVERT ZR solution, maintained in the correct parameters, produces about 70% sludge less than a traditional phosphating process, less maintenance and disposal

Surfaces with CONVERT ZR are compatible with any kind of painting (liquid, dust, electrophoretic)

test on Q Panel – 640 hr



Very diluted solutions of CONVERT ZR can be used to seal and further passively pre-phosphate surfaces obtaining a compact phospho-zirconate layer.

CHEMICAL-PHYSICAL DATA

Aspect: liquid, limpid.
 Odor: characteristic
 Colour: incolour –light straw
 pH (as it is): 1,20-1,80

N.B. slight variations in appearance don't affect the characteristics of the product.
 Store at temperatures between 0 ° and 40 ° C.



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HOW TO USE

Regardless of the operating system, all the components of the plant that will be in direct contact with CONVERT ZR solutions will have to be in AISI 304 or 316 steel or in acid resistant fluorine-containing plastic material. To bring the pH value as recommended, use only NEUTRALIZER ZR (K00488209) this particular in the preparation of new solutions.

Three-stage plant application (conversion / degreasing + rinsing with water + rinsing with demineralized water):

Convert ZR concentration :	5-15 Kg/m ³
Kemphos AD WET concentration:	0,5-5 Kg/m ³
temperature:	40°-60°C
contact time:	3 min.
pH (use Neutralizer ZR):	3,8-4,8 (optimal 4,0-4,5)

Application in five stage systems (alkaline degreasing + rinse with water + conversion + rinse with water + rinse with demineralized water):

Convert ZR concentration:	5-15 Kg/m ³
temperature:	room temperature
contact time:	1-3 min.
pH (use Neutralizer ZR):	3,8-4,8 (optimal 4,0-4,5)

Application as post-phosphatization passive no rinse (fphosphatizzazione + rinse with water + rinse with demineralized water + conversion with demineralized water):

Convert ZR concentration:	0,4-0,8 Kg/m ³
temperature:	room temperature
contact time:	30 sec.-1 min.

Immersion application (conversion + rinse with water + rinse with demineralized water):

Convert ZR concentration:	5-25 Kg/m ³
Kemphos AD WET concentration:	1-5 Kg/m ³
temperature:	40°-60°C
contact time:	1-6 min.
pH (use Neutralizer ZR):	3,8-4,8 (optimal 4,0-4,5)

Controls and specific recommendations

Take a bath sample in a plastic cup and allow to cool down to about 20 ° C.

Measuring the pH, preferably with a pH meter with a strong fluoride electrode, this test has to be performed several times a day, frequency depends on the operating conditions. The pH meter must be calibrated with buffer solutions 4 and 7. pH, particularly during the initial preparation, can be affected by the water quality, if necessary, use Zr Neutralizer to increase pH.

It is strongly recommended to have an automatic dosing system with continuous pH reading. The accumulation of oily substances in Convert ZR solutions is to be avoided, in the case adopt of suitable separators.

Kemper technicians are available to collaborate and study the best solutions to the specific needs of the customer.