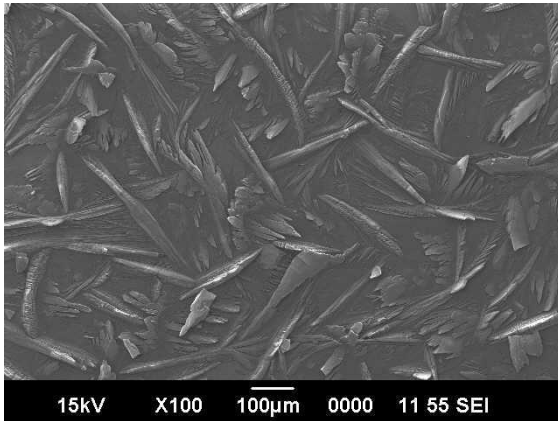


F 2165

PHOSPHATA Z 5650

GA: 2081

Ni-free zinc phosphating agent



Steel/iron/cast materials:

Phosphata Z 5650 is a low sludge zinc phosphate agent used to produce **thick, fine crystal-line, dark zinc phosphate layers.**

Depending on the material being processed, pre-rinsing or the addition of a Ferrex accelerating solution may be necessary.

We recommend **empirically pre-testing.**

Form of delivery: In 20 l plastic canisters – in 200 l barrels – in 800 l containers (IBC)

Application: Immersion process (*other parameters for concentration and temp. are to be set in spraying process*)

Parameters:

Operating temperature:	60-80 °C
Treatment time:	2-15 min.
Concentration:	30-75 total acidity points; FSV (free acid ratio) 5-6
pH-range:	1.6-2.2
Layer thickness and coating weight:	3-10 µm 5-20 g/m ² depending on the total concentration setting and the material being processed

Note: For special materials, it may be necessary to dip the material in a pre-activation solution or to add **Ferrex accelerator** to the phosphating bath.

Bath formulation: For every 100 l of phosphating bath is required 5-6 l (8-10 kg) of **Phosphata Z 5650**.
5 l (≈ 8 kg) **Phosphata Z 5650** / 100 l bath results in approx. 40 ± 5 total acidity points.

Treatment process: Cleaning – rinsing – pickling (if required) – rinsing – (pre-)rinsing – phosphating – rinsing – after-rinsing – greasing – drying

The most favourable treatment conditions are determined during the commissioning of the plant. For phosphating baths to which **Ferrex** has been added, a working temperature of 70-75 °C can be selected.

Parameters:

Operating temperature:	60-80 °C
Treatment time:	4-15 min.
Concentration:	30-75 total acidity points; FSV (free acid ratio) 5-6
pH-range:	1.6-2.2
Layer thickness:	3-10 µm
Layer weight:	5-20 g/m ² depending on the overall concentration setting (10 % solution by vol. results in approx. 82-85 total acidity points with an FSV of 5.2-5.5)

Pre-treatment: All impurities must be removed from the metal surface before the phosphating process is initiated.
We recommend our **Alkalit products** for cleaning/degreasing.
We would recommend our **Rostalit products** if pickling is required.
A brief pickling process can also be useful after mechanical descaling.

Rinsing: Careful rinsing is required after each processing step.

Aftertreatment: All workpieces should be greased subsequently to the phosphating process.
The following products are available to you for aftertreatment purposes:
DEWE Fluid dewatering agent
Emulsin corrosion protection emulsion

Bath control: The bath can be controlled in accordance with the M 105 + M 106 data sheets.

Bath supplementation

normally: For each lacking total acidity point, for 100 l phosphating bath **120 ml** (0,2 kg) of **Phosphata Z 5650** are required.
Bath supplementation should be undertaken **at short intervals** so that not more than **2 total acidity points** have to be supplemented at one time.
It is better to undertake continuous supplementation.

Supplementing the bath after desludging or for thicker layers:

After desludging the bath, it may be necessary to proportionally refill the bath with newly prepared bath solution.
For each lacking total acidity point, for 100 l phosphating bath **120 ml Phosphata Z 5650** are required.

Environmental protection:

In accordance with Federal Water Act (WHG) **Phosphata Z 5650** is a class 2 (WGK) substance hazardous to water.

Product safety:

Phosphata Z 5650 is subject to be labelled in accordance with the German Ordinance on Hazardous Substances.

Hazard symbol:



GHS05

GHS09

Signal word: Danger

For further specifications refer to the EC safety data sheet.

Safety measures:

Before using and handling **Phosphata Z 5650**

- Refer to the EC safety data sheet!
- The instructions for use must be observed.
- Wear suitable protective clothing.

In the event that the product comes into contact with skin and/or eyes, immediately rinse with plenty of water and, especially in the event of eye contact, immediately seek the advice of a medical specialist.

The accident prevention regulations specified by the Professional Association Chemistry (BG Chemie) for handling corrosive substances must be adhered to!

Materials used for containers and heating elements: Chrome nickel steel, material no. 1.4571

Maintenance of the bath container and heating elements:

The bath container and especially the heating elements have to be cleaned thoroughly from time to time. In order to do so, the phosphating bath solution is pumped out into another bath container, e.g. emptied rinsing bath.

After the clear bath liquid is fed back into the container, the working volume is topped up and the solution should be well mixed.

The total acid points are then determined, and **Phosphata Z 5650** is supplemented until the reference value is reached. Supplementation is undertaken as described above after calculation of the lacking total acid points.

Storage: As per German Ordinance on Hazardous Substances (GefStoffV)

Phosphating concentrates should be stored in heated storage rooms during the winter months (storage class 8 in accordance with VCI guidelines – corrosive substances)

Attention: After about 4 months storage time the concentrate may suffer discoloration (from light blue to yellow greenish). Though the properties of the product will be maintained!

Waste water:

All waste water must be treated in accordance with statutory requirements and local regulations before it is allowed to enter the sewage system.

Modern phosphating plants work waste water free using a suitable rinse water system.

Please do not hesitate to contact us for further information.

Waste disposal:

Waste code no.

Concentrate and bath solution: AVV 11 01 05* *acid pickling solution (phosphoric acid solution)*

Sludge: AVV 11 01 08* *phosphating sludge*

The used product and its solutions are to be treated as hazardous waste according to local statutory regulations.

We offer: Return of waste in accordance with § 25 et seq. KrWiAbfG (only valid for Germany!).

Please do not hesitate to contact us for further information.

The container must be emptied of any residues.

Waste code no. for contaminated packaging: AVV 15 01 10* *Packaging containing residues of hazardous substances or contaminated with hazardous substances*

Warranty:

The information given here has been provided to the best of our knowledge and is based on our practical experience and laboratory tests, however we provide no guarantee.

Since we cannot influence a **differing use** of our products, we shall be liable only for the **delivery condition**. Our sales service and our development and applications department will be pleased to offer you advice on application issues (tel.: +49 9122 9868-19).