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TOPAS 3100 - alkaline, cyanide-free zinc process

TOPAS 3100 is an electrolyte formulated on a zincate basis, which is suitable for rack and barrel plating. Stabilisers entirely prevent the once feared retarded spangle formation. The electrolyte works at a zinc content of 11 – 15 g/l and a caustic soda content of 110 – 150 g/l. The temperature should be 21 – 32 °C. The applicable current densities are between 0.3 and 3 A/dm². The electrolyte is also characterised by the following features:

- Very good film thickness distribution and depth scatter
- Wide, uniform gloss deposition range
- Ductile, stress-free deposition precipitation
- Simple bath control (during operation only two additives are metered in)
- Due to the low salt content, favourable and simple detoxication

For the operation of the TOPAS 3100 electrolyte the following additives are used:

1. TOPAS 3100 Basis

It contains all of the active substances permitting uniform zinc deposition.

2. TOPAS 3100 gloss additive

It brings about a uniform gloss formation and improves the throwing power

3. Stabiliser TOPAS 3100

Used for the elimination of faults arising from the contamination of the bath

4. TOPAS 3100 correction solution

Acts together with the stabiliser TOPAS 3100 against contaminants which make themselves noticed by cloudiness or burning onto the Hull cell plate.

Please have a word with our technical field service. Our staff will be pleased to advise you without any engagement on your part – naturally, if required, also on the spot on your premises.

PROSEAL Additive Yellow

Our product colours passivation coatings yellow, which were produced in our chrome(III)-containing PROSEAL passivations.

CHARACTERISTICS:

- (1) Solid powder product.
- (2) The yellow coatings can be sealed with our sealings SURFASEAL WL 40, SURFA-SEAL WL 50 and SURFASEAL WL 150. The yellow colour will remain onto the surface.
- (3) The corrosion protection of our PROSEAL passivation will remain constant.

 [Images and infomations](#)

Future-orientented passivation

PROSEAL NP-300 is a new conversion coating which not only meets the requirements of the EU Directives on Used Vehicles and the RoHS (Reduction of Harmful Substances) concerning the freedom from chromates but even goes a step further. Passivators frequently contain cobalt components to increase corrosion protection. Due to the special dangerousness of cobalt components it can be expected that they must no longer be used in the foreseeable future.

Consistently with PROSEAL NP-300 a conversion coating has been developed which additionally still meets very high corrosion protection requirements.


Photograph 1 shows nuts after 240 hours of salt spray test according to DIN 50021 SS which had been galvanised in the alkaline cyanide-free process TOPAS 3100 and passivated with PROSEAL NP-300. The associated graphic shows the high white rust resistance of the system.

Also on zinc coatings which were deposited from acid electrolytes the corrosion protection is considerably improved.

Photograph 2 shows the corresponding parts after 240 hours of salt spray test, Graphic 2 shows the test frequency.

A further increase in the protection value is possible with the sealing SURFASEAL WL 150 specially adapted to the new conversion coating. Here protection values are then reached, which so far were possible only with zinc alloy deposits.

For further information please contact us or our field staff.

 [Images and diagrams](#)

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