

## EJOSEAL 4C

Improved installation torque in combination with high corrosion resistance



EJOSEAL 4C is a clear, organic/inorganic sealant with integrated lubrication. Originally developed to improve the corrosion resistance and the reduction of friction.

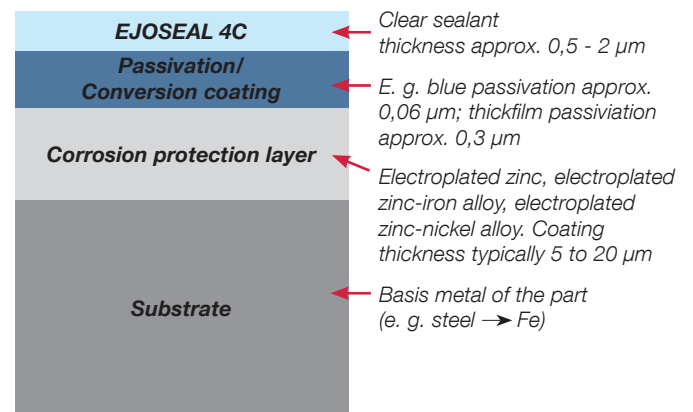
The sealant EJOSEAL 4C is a combination of inorganic silicium compounds with polymer contents and chemical functional ingredients. It does not contain heavy metals.

When using EJOSEAL 4C on passivated zinc, zinc-iron and zinc-nickel coatings the corrosion resistance increases considerably. Generally zinc-nickel (12 to 16 % nickel content) with a coating thickness of min. 8  $\mu\text{m}$ , clear Cr(VI)-free passivation + EJOSEAL 4C provides in the neutral salt spray test acc. to ISO 9227-NSS a corrosion resistance of > 240 h without Zn-corrosion (white rust) and > 720 h without Fe-corrosion (red rust).

EJOSEAL 4C can be applied on the following coating systems:

- Electroplated zinc
- Electroplated zinc-iron alloy
- Electroplated zinc-nickel alloy

EJOSEAL 4C has a temperature resistance up to 140°C. It provides a high adhesive strength and therefore is very suitable for automatic feeding systems, which are common for optical sorting processes and assembling processes.



General structure of electroplated zinc or zinc alloy coating with EJOSEAL 4C

Due to the high amount of integrated lubrication in EJOSEAL 4C many applications don't need an additional lubrication.

## Coating specifications which can be fulfilled with EJOSEAL 4C:

Coating system: electroplated zinc 8 µm, thickfilm passivated + EJOSEAL 4C

- BMW GS 90010-1 ZNT
- Mercedes Benz DBL 8451.16
- VW OfI - c 341 acc. to VW 137 50, requirements per TL 217
- VW OfI - c 343 acc. to VW 137 50, requirements per TL 217
- ISO 19598 - Fe//Zn8//Cn/T2yL

Coating system: electroplated zinc-nickel alloy 8 µm, clear passivated + EJOSEAL 4C

- BMW GS 90010-1 ZNNIV SI
- Mercedes Benz DBL 8451.76
- Mercedes Benz DBL 9440.40 ZnNi
- VW OfI - r 645 acc. to VW 137 50, requirements per TL 244
- ISO 19598 - Fe//ZnNi8//Cn/T2yL

Coating system: electroplated zinc-nickel alloy 8 µm, black passivated + EJOSEAL 4C\*

- BMW GS 90010-1 ZNNIV SW
- Mercedes Benz DBL 9440.50 (ZnNi)
- VW OfI - r 677 acc. to VW 137 50, requirements per TL 244
- ISO 19598 - Fe//ZnNi8//Fn/T2yL

\*visual interference possible by EJOSEAL 4C on black coatings



*EJOCLEAN® center - where the parts are cleaned according to the specified cleanliness level*

## Fasteners with technical cleanliness requirements

EJOSEAL 4C can be cleaned (after cleaning the amount of particles is reduced – fading curve). That means it can be used for fasteners with technical cleanliness requirements (EJOCLEAN®).

## Fasteners for direct assembly into metals

To be able to get very low installation torques, it is recommended to use an additional lubrication on top of the EJOSEAL 4C.

## Friction coefficient requirements according to ISO 16047 for electroplated zinc-nickel alloy, clear passivated + EJOSEAL 4C

A total friction coefficient  $\mu_{tot}$  0.09 – 0.14 acc. to VDA 235-101 can be fulfilled with the coating system electroplated zinc-nickel alloy, clear passivated + EJOSEAL 4C (reference screw DIN 933 M8x50-8.8).



*Vacuum packed screws are protected with bubble wrap against shocks during transportation*