# Surface finishing, metallic coatings

# BOSCHDeposition of ZnNi alloys,<br/>transparent passivation and sealing

April 2005

N67F **826 10** 

Oberflächenverfahren, metallische Überzüge; Abscheiden einer ZnNi-Legierung, transparent Passivieren und Versiegeln

Replaces edition 2004–02

# In case of doubt, apply the German version of this Bosch Norm.

# 1 Scope

This norm describes requirements and characteristics of the ZnNi alloy coating to be applied as well as process specifications. The principal subject of this norm is the protection of components against corrosion. This norm applies to Fe materials with tensile strength  $< 1000 \text{ N/mm}^2$  (< 31 HRC), e.g. steel or gray cast iron.

# 2 Requirements and characteristics

# 2.1 Coating thickness

 $\geq$  5  $\mu$ m ZnNi,

Measuring point(s) and maximum coating thickness according to drawing.

#### 2.2 Corrosion resistance

#### 2.2.1 Salt spray test according to N42AP 102

Test duration	acceptable degree of corro- sion or rusting (white or red rust) according to N42AP 015
120	K 0
600	Ri 0

# 2.3 Hue

Silver colors

# 2.4 Absence of Cr(VI)

The applied coating should be Cr(VI)-free. Testing method in accordance with draft DIN 50993-1 edition July 2004.

# **3** Process specifications

# 3.1 Process characteristics

Electrolytic ZnNi alloy deposition in the barrel (Ni–percentage by mass = 10 to 15 %), transparent passivation and sealing.

# 3.2 Process parameters

- Pre-treatment
- ZnNi alloy deposition
- Passivation
- Sealing

**Note:** Additional process parameters can be defined in manufacturing documentation, they are not covered by this norm.

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Technical responsibility : CR/APT1

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Language:EN

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#### 3.3 Approved suppliers

No restrictions **Note:** Qualified suppliers can be suggested by CR/APT1, if required.

#### Additional applicable norms

N42AP 015; N42AP 102;

#### Change information on edition

05.99; 06.00 (A18320); 02.04 (A18798)

#### Alterations

Section 2.4 "Absence of Cr(VI)" included. Section 3.2 "Process parameters" under "Passivation" supplement "in Cr(VI)-free solution" removed.