

ACOSUR[®] ZNA
AEROSPACE CORROSION PROTECTION

Advantages of
Acosur® ZNA

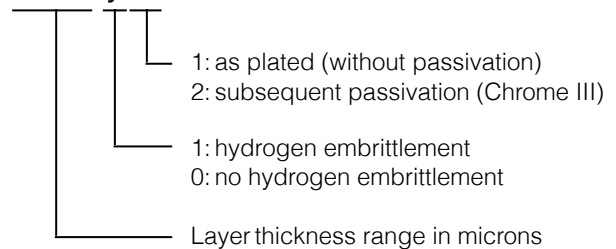
Acosur® ZNA is a zinc nickel coating applied by a modified electrolytic plating process. It is characterized by excellent adhesion strength and high corrosion protection, also meets the requirements of Airbus AIPS 02-04-006 and AMS 2417.

Thus Acosur ZNA is ideal as a contemporary replacement for the conventional cadmium plating or Cr (VI)-containing zinc coating.

- ▶ excellent corrosion protection, > 750 h RR (ISO 9227).
- ▶ Cd Replacement
- ▶ AIPS 02-04-006 and AMS 2417 compliant
- ▶ No process-related hydrogen embrittlement
- ▶ high adhesion on stainless steels (100% ISO2819)
- ▶ Reduction of galvanic corrosion of Fe (SS) / Al
- ▶ smallest layer thicknesses where needed (1-2 microns)
- ▶ From -55 ° C to 180 °C no loss of corrosion protection
- ▶ Cr (VI)-free
- ▶ 2002/95/EC (RoHS) compliant
- ▶ 2000/53/EC (ELV) compliant

Order code

Acosur ZNA xx-xx y z



Coatable materials

- ▶ Ferrous and non-ferrous metals with $R_m < 1450 \text{ N/mm}^2$
- ▶ high-alloy steels
- ▶ hardened steels

Application for
bearing components

The possibility to coat even high-alloy materials like stainless steels, combined with a layer thickness of 1-3 microns, makes Acosur ZNA the ideal coating for bearing components.

Rolling bearings are - if not made from stainless steel - exposed to an increased risk to corrosion. This applies less to the greased treads, rather than to the unprotected outer and inner rings. A corrosion protection coating should on one hand meet the purely protective function but must on the other hand not adversely affect the required clearance and the raceways. Conventional anti-corrosion coatings such as cadmium or Cr(VI)-containing zinc coatings are increasingly losing importance, as these coatings show nonconformity with the EC Directives 2002/95 and 2000/53.

Advantages for bearing
components

- ▶ Lowest layer thickness (1-3 microns)
- ▶ No annoying sealing
- ▶ Replacement of conventional bearings against Acosur ® - coated readily possible.
- ▶ Cost advantage over stainless steel bearings
- ▶ No reduction in sustainability like with stainless steel bearings.

Coatable bearing materials

all standard bearing materials can be coated, including

- ▶ 100Cr6, 100CrMn6, 100CrMo6, 440C, X65Cr13, X30CrMoN15-1
- ▶ Stainless steels
- ▶ Brass

Order code for
bearing components

Acosur ZNA 01-03 02

- ▶ Layer thickness of 1-3 microns, Cr6-free passivated

Corrosion test of Acosur® ZNA



Test methods:
neutral salt spray test
according to DIN EN ISO
9227 (results are general
geometry dependent)

Further applications

- ▶ Marine industry
- ▶ Construction machinery
- ▶ Chemical Process Engineering
- ▶ Washing and cleaning machinery
- ▶ Protection to marine transportation

© Copyright MBK 2008
Reproduction in whole or in part, only with our
permission.

All information in this publication have been
made to the best of our knowledge and belief
and checked several times. However, errors may
occur or technical changes may be conducted.
MBK disclaims all liability of any kind caused
by the use of the content provided, unless there
is gross negligence.

MBK
Metallveredlung Brazel GmbH
Otto-Hahn-Str. 15-17
D-73230 Kirchheim u.T.
Germany
www.mbk-gmbh.de

Printed publication
Acosur ZNA PI EN 04114
subject to change
rev. 14.04.2014

Other coatings for bearings:

Wolfratherm®, dry lubrication

Losur®, coating with emergency operation feature (Pat. pending)

Acosur®, Wolfratherm® and Losur® are registered Trademarks of Metallveredlung Brazel GmbH