### ZERUST 🏈 EXCOR

# ABRIGO<sup>®</sup> paper

EXCOR<sup>®</sup> ABRIGO<sup>®</sup> VCI corrosion protection paper combines the familiar excellent corrosion protection properties of EXCOR<sup>®</sup> with the tried-and-tested qualities of traditional paper packaging.

ABRIGO<sup>®</sup> is based on specified 1A kraft paper treated with a VCI solution. It is durable, versatile, abrasion-resistant and pleasant to handle, while the fact that VCIs are diffused from both sides rules out application errors. The VCI impregnation contains proven EXCOR<sup>®</sup> active corrosion protection substances which are given off at a measured rate by sides of the paper. Depending on the design, specific metals and alloys are protected both through direct contact and via the vapour phase. Once the ABRIGO<sup>®</sup>-packaging is opened the protective film evaporates from the metal surface without residue within one to two hours, and the packed product can be assigned to its intended use without having to undergo any further processing.

ABRIGO<sup>®</sup> retains its packaging-specific properties, is non-slippery and dry. Thanks to the measured diffusion of the active corrosion protection substances, ABRIGO<sup>®</sup> remains effective for a significantly longer period. Its corrosionpreventing properties conform with the requirements of TL 8135-0002, Level 3. ABRIGO<sup>®</sup> can be used as individual packaging, as interleaving layers or simply as VCI dispensers. As well as our standard sizes, custom sizes can be provided in both roll and sheet form. This flexibility permits sparing and economical use of materials.

### **Protective effect\***

Type E: Steel, cast steel, partially galvanised steel, Cr, Al 4xxx (Si > 7%), cast iron

Type NE C: Cu, brass, Al 2xxx (Cu) and 5xxx (magnesium) possible

Type MM: Steel, galvanised and tin-plated steel, Cu, brass, aluminium 2xxx (Cu), 5xxx (Mg), 6xxx (Mg, Si), 7xxx (Zn), other Al alloys on re quest, also combinations of the above metals

Type A: Steel, galvanised and tin-plated steel, Cu, brass, aluminium 2xxx (Cu), Mg alloys possible, cast iron

\* In the case of metal parts with unusual surface properties, such as high levels of roughness or coated with residue from processing media, before the large-scale commercial employment of EXCOR VCI materials we advise conducting tests on sample packaging in an environment simulating the actual conditions of use. Various climatic test cabinets and environmental chambers up to 16 m<sup>3</sup> in volume are available for the purpose at EXCOR Korrosionsforschung GmbH in Dresden.



Active on both sides even at high relative humidities of  $\leq 98\%$ 

Abrasion-resistant

Recyclable, can be disposed through household refuse & landfill, can be incinerated

Poses no health hazard, non-toxic, no risk posed by skin contact or inhalation

Conforms to TL 8135-0002, Level 3

EXCOR<sup>®</sup> the corrosion protection that comes out of the packaging!

## ABRIGO<sup>®</sup> paper





### **Technical Data**

| EXCOR <sup>®</sup> ABRIGO <sup>®</sup> is a corrosion protection paper based on 40 g/m <sup>2</sup> or 70 g/m <sup>2</sup> kraft paper treated with an EXCOR <sup>®</sup> VCI coating solution. Active on both sides and abrasion-resistant.                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Brownish typical paper colour, colour printed for differentiation purposes (Type E yellow, Type NE blue & Type MM green), Type A can be printed to individual requirements.                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| One m <sup>2</sup> of ABRIGO <sup>®</sup> can protect up to 10 m <sup>2</sup> of metal surface. The dosing is influenced by a variety of factors, such as the packaging design, logistical processes, pretreatment of parts, etc.), and be-<br>cause of this prior technical consultation may be necessary. Our application engineers will be happy to advise you. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| temperature o                                                                                                                                                                                                                                                                                                                                                      | f 20°C. The closer the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Up to two years provided instructions are followed. Long-term corrosion protection for up to 15 years is possible if the instruc-<br>tions and specific logistic and technical packaging guidelines are followed.                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| As delivered or in Type E sealed packaging, EXCOR <sup>®</sup> ABRIGO <sup>®</sup> can be stored for one year. Types A, MM and NE(C) and NE(S) can be stored for two years.                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Approved by:                                                                                                                                                                                                                                                                                                                                                       | Audi AG, BMW AG, D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | aimler AG, Volksw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | agen AG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Grammage                                                                                                                                                                                                                                                                                                                                                           | DIN 53 479                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Bursting resistance                                                                                                                                                                                                                                                                                                                                                | 150 2758                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 40 g/m²                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 170 kPa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| (mean value)                                                                                                                                                                                                                                                                                                                                                       | 130 2730                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 70 g/m²                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 310 kPa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| of VCI packagi<br>rate of VCI con<br>German testin                                                                                                                                                                                                                                                                                                                 | ng for their corrosion<br>nponents is tested on<br>g body TÜV Süd certif                                                                                                                                                                                                                                                                                                                                                                                                                                         | inhibitor content.<br>a random samplin<br>ies that the concer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The emission<br>og basis. The<br>ntrations of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                    | g/m² or 70 g/m<br>solution. Activ<br>Brownish typic<br>purposes (Typ<br>can be printed<br>One m² of ABI<br>dosing is influ<br>design, logisti<br>cause of this p<br>application en<br>About one hou<br>temperature of<br>ser the shorter<br>Up to two yea<br>corrosion prot<br>tions and spec<br>followed.<br>As delivered of<br>can be stored<br>be stored by: .<br>Grammage<br>Bursting<br>resistance<br>(mean value)<br>EXCOR® tests<br>of VCI packagi<br>rate of VCI con<br>German testin<br>VCI active subs | g/m² or 70 g/m² kraft paper treated<br>solution. Active on both sides and a<br>Brownish typical paper colour, colo<br>purposes (Type E yellow, Type NE b<br>can be printed to individual require<br>One m² of ABRIGO® can protect up<br>dosing is influenced by a variety of<br>design, logistical processes, pretrea<br>cause of this prior technical consult<br>application engineers will be happy<br>About one hour in one m³ of tightly<br>temperature of 20°C. The closer the<br>ser the shorter the build-up phase.<br>Up to two years provided instructio<br>corrosion protection for up to 15 ye<br>tions and specific logistic and techr<br>followed.<br>As delivered or in Type E sealed pa-<br>can be stored for one year. Types A<br>be stored for two years.<br>Approved by: Audi AG, BMW AG, D<br>Grammage DIN 53 479<br>Bursting<br>resistance ISO 2758<br>(mean value)<br>EXCOR® tests representative sample<br>of VCI packaging for their corrosion<br>rate of VCI components is tested on<br>German testing body TÜV Süd certif<br>VCI active substance or the VCI syste | g/m² or 70 g/m² kraft paper treated with an EXCOR®<br>solution. Active on both sides and abrasion-resistant.Brownish typical paper colour, colour printed for diffe<br>purposes (Type E yellow, Type NE blue & Type MM gr<br>can be printed to individual requirements.One m² of ABRIGO® can protect up to 10 m² of metal<br>dosing is influenced by a variety of factors, such as th<br>design, logistical processes, pretreatment of parts, et<br>cause of this prior technical consultation may be nece<br>application engineers will be happy to advise you.About one hour in one m³ of tightly sealed packaging<br>temperature of 20°C. The closer the product is to the<br>ser the shorter the build-up phase.Up to two years provided instructions are followed. L<br>corrosion protection for up to 15 years is possible if th<br>tions and specific logistic and technical packaging gu<br>followed.As delivered or in Type E sealed packaging, EXCOR® ,<br>can be stored for one year. Types A, MM and NE(C) ar<br>be stored for two years.Approved by: Audi AG, BMW AG, Daimler AG, VolkswGrammageDIN 53 479Bursting<br>resistance<br>(mean value)EXCOR® tests representative samples from every prod<br>of VCI packaging for their corrosion inhibitor content. T<br>rate of VCI components is tested on a random samplin<br>German testing body TÜV Süd certifies that the concer<br>VCI active substance or the VCI system have been insp |



EXCOR<sup>®</sup> ABRIGO<sup>®</sup> is available in various paper qualities and grammages

- Rolls - Sheets

**Optional:** Polyethylene coating on one side

Customer-specific printing

**Available as standard from stores:** EXCOR® ABRIGO® paper Type E, A und MM 40 g/m<sup>2</sup> und 70 g/m<sup>2</sup> 780 mm, 25 kg / roll

#### Disposal

recyclable

can be disposed through household refuse & landfill

can be incinerated



Poses no health hazard

Non-toxic

No hazard from skin contact or inhalation

No monitoring requirements under TRGS 615 and no restrictions under TRGS 900

#### Contact us at:



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