# KOLB CoatedProducts®

Coated corrugated board for undreamt-of advantages

HANS KOLB
COATED PRODUCTS

www.kolb-wellpappe.de/cp

# besser verpacken ...

*... with **HANS KOLB** Wellpappe.*
*It's a claim that is also a promise. A promise that we'll provide an impressive variety of packaging solutions which are new every day.*

*It was back in 1933 that Hans Kolb first founded what has now become one of the most successful family-owned companies in the corrugated-board business. Corrugated board forms the basis of the packaging solutions from **KOLB**. Simply explained we are architects for your products „home". Your customized packaging solution will be created by our team of **KOLB Design**, the R&D division of **KOLB**.*

*The convincing criteria for reaching your packaging goals is a modern production environment and, above all, the know-how of more than 900 committed employees.*

HANS KOLB
COATED PRODUCTS

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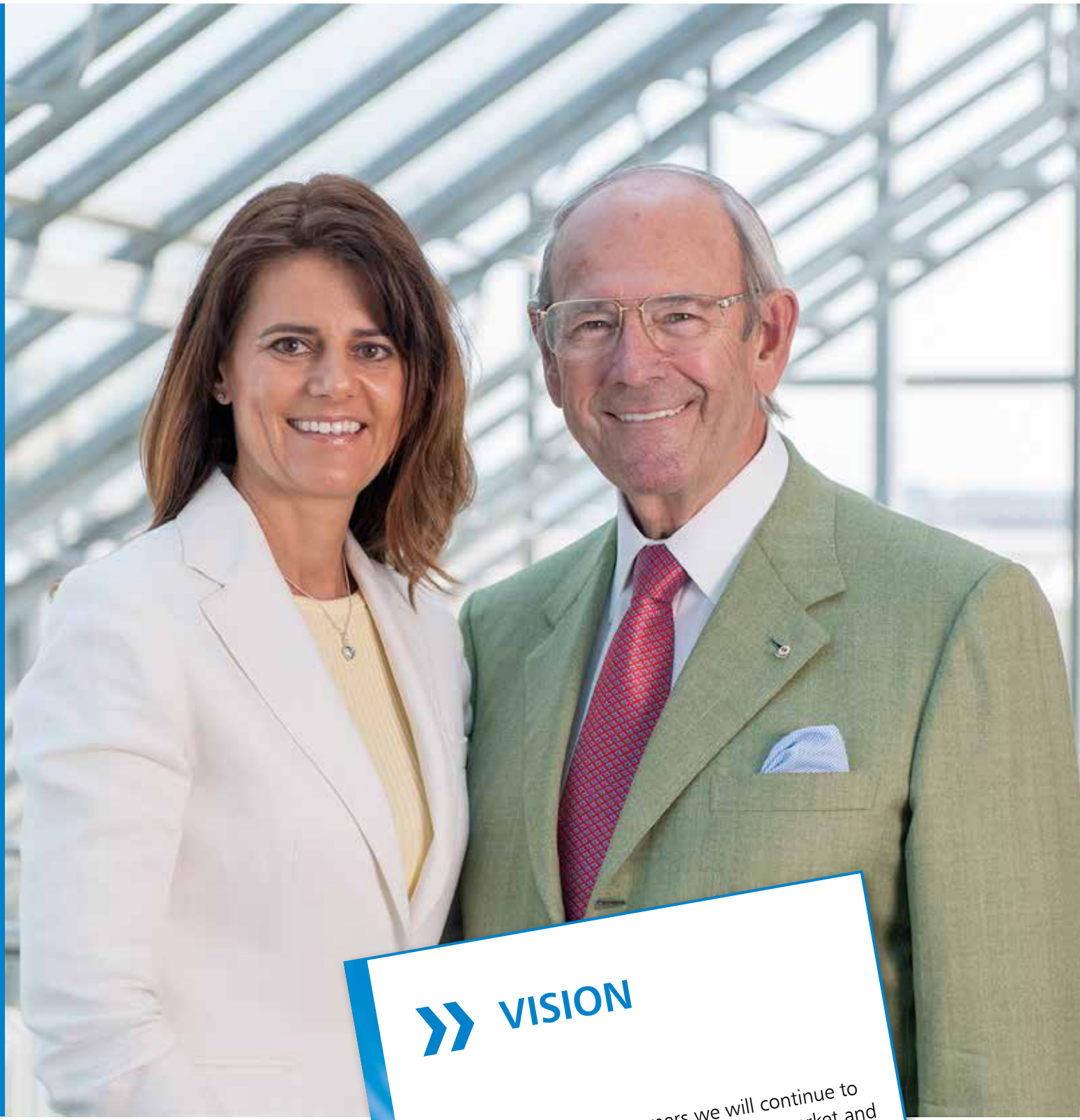


## VISION

Together with our customers we will continue to respond to all the requirements of the market and accompany them with constant innovations.

Angela Kolb and Alwin J. Kolb

# The Company

**Our passion is both developing and producing corrugated board packaging solutions. Our claim „besser verpacken!" is more than just saying KOLB packaging solutions are better. Instead KOLB offers a wide range of developing and logistical service. As a family-owned company based in one of the most beautiful parts of Southern Germany, the Allgaeu, we have been grown together with our customers over the past eight decades.**

As early as in 1933 the basis for our success was established. Since then the Hans Kolb Group has developed step by step to an internationally active company. We develop and produce packages, packaging materials and special products of corrugated cardboard.Our main duty is to face the market's new challenges quickly and flexibly.

Packaging needs to conform to various requirements. Here KOLB packaging development continues along a tailor-made path. According our motto "better packaging" the **KOLB Design** team with its long experience utilizes the most modern creativity systems.

Numerous different solutions can be tested and created, which always gives you the advantage. Highest flexibility is our demand and at the same time our promise when it comes to the development of the perfect packaging solution.

As producer of environmentally friendly recyclable products, HANS KOLB Wellpappe commits itself to a binding environmental policy to a great extent.

Our company has always given significant value to the gentle handling of raw materials as well as the application of ecological energy in modern production procedures. Through our determination to protect the environment – binding for the whole of the company as well as for each individual employee – we adopted an exemplary position in the field of ecological protection. In this context we produce, for example, our own energy in terms of electricity and steam at our papermill HANS KOLB Papier.

**... this is what our claim stands for:**

besser verpacken!

# Sustainability Through Tradition

Long before the topic of sustainability was discussed in daily matters, it was exactly this course of action which was rooted in our company "genes". We base this on products which have long been certified with **FSC** and which are produced at all sites. Even the papermill HANS KOLB Papier pursues this self-concept as certified by independent institutions. Moreover, we have always had a compact circular flow of raw materials within our own raw paper production since edge trimmings and die-cutting waste are directly recycled to high-quality raw paper with added waste paper of suppliers in our region.

However, this is not enough: our company culture with flat hierarchies and an extremely short decision taking process permanently keeps us on the cutting edge – however, without forgetting what we have already reached and the consequent experience. An above-average job tenure is another impressive fact which proves this.

Moreover, we socially stand by our origins: as sponsor of the **"Kinderbrücke Allgaeu e. V."** (association to help children) we support this organization form the beginning of their work since over the past 10 years.

One of our shareholders ist also member of the committee to make decisions in order to support sick children innocently afflicted with distress here in the region. This is done without bureaucracy, with the necessary comprehension or simply with "the heart in the right place".

Speaking of region: the majority of our production and administration locations are in the "Allgaeu". However, where farms used to be the most important economic mainstay in earlier times, it is now a balanced and – at the same time – specialized branch structure that characterizes the economic site of the Allgaeu. Since our foundation in 1933, we have grown with our customers and are proud to have many long-time business relationships. This is the basis for our requirement to continue to meet the market's growing demands in the future – since this is exactly what we understand by sustainability.

# CORSTAT™
# CORTRONIC®

## ... When There Is A Spark!

# CORSTAT™
# CORTRONIC®

### IEC and EN Standards

Standards play an important part in reducing uncertainties in the evaluation, selection and use of ESD protection programs and products. Today in Europe, the operating standard is IEC 61340-5-1.

**COR**TRONIC® meets or exceeds IEC 61340-5 requirements pertaining to packaging of ESDS during transport and shipping.

### Electrostatic Protected Area

All containers and working appliances in the ESD protected area must be of diverting nature in order to make a controlled potential equalization respectively the grounding possible.

### Anti-oxidation Protection

All ESD protective packagings can additionally be equipped with an active, temporary and volatile corrosion inhibitor (VCI).

### Electrostatic Discharge ESD

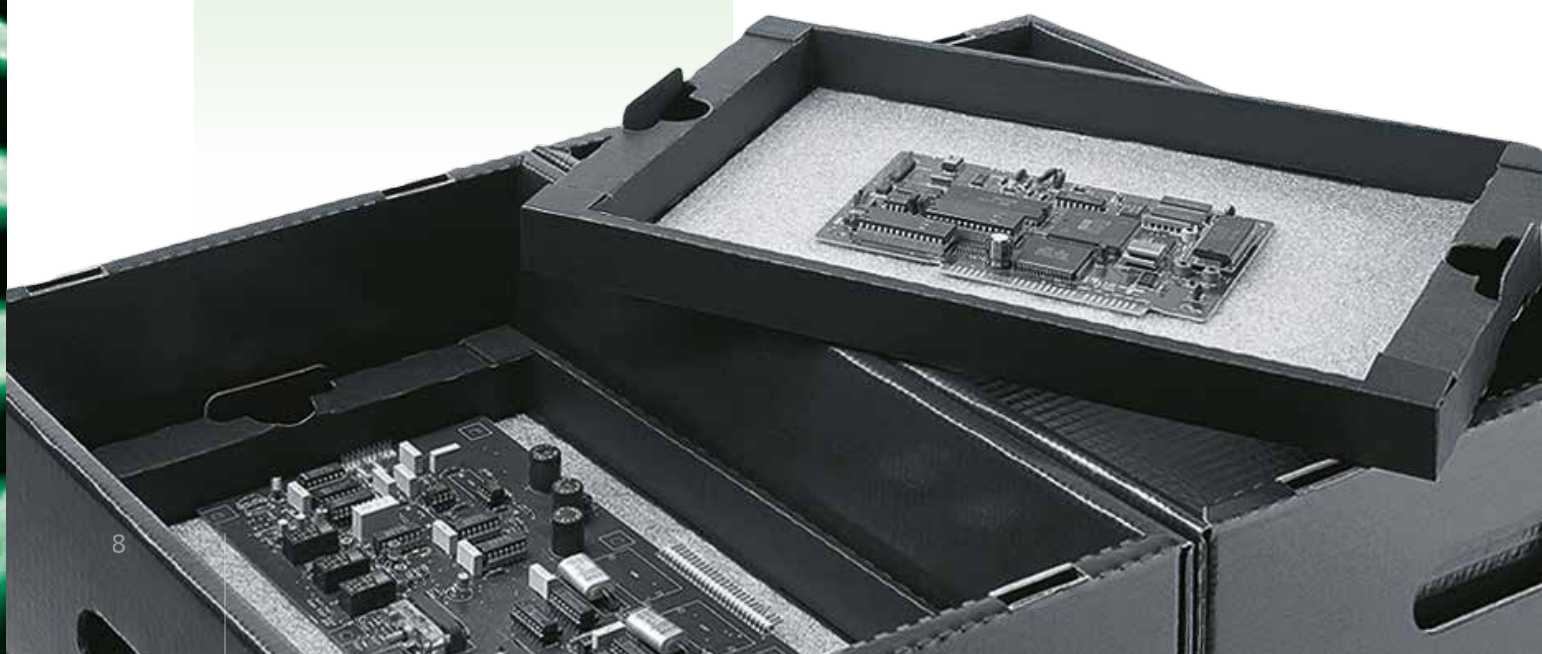
To a greater or lesser extent all contact between objects, every separation of one item-from another, each sliding of one thing on another, causes a disturbance of electrical charge. When charge disturbances take place faster than charge redistribution, static charge accumulates. ESD occurs where charges of different electrostatic potentials meet. The flow of electrons is usually sudden and releases energy that can damage electrostatic sensitive devices (ESDS).

### The Answer

To protect ESDS from the unwanted effects of ESD, two key measures must be taken and applied at all times:

- ESDS must be handled exclusively in an ESD Protected Area (EPA) where electrostatic potential differences are minimised.
- ESDS should be transported from one EPA to another preferably only in shielded packages.

**COR**TRONIC® is an ideally suited packaging for ESDS and because of its static dissipative skin and buried conductive core, it is an ESD shielding material suitable for use in ESD protected areas.



**Permanent conductive – no time limit**

**CORSTAT™ and CORTRONIC® for safe use inside and outside of the EPA**

**CORTRONIC®** $\approx 10^{7\text{-}8}$ diverting layer Ohm
$< 10^{2}$ shielding layer Ohm

**Shielding**

**Outside**
EPA

**Inside**
EPA

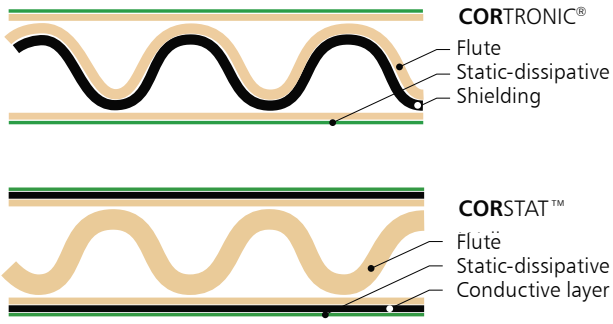
**static – dissipative**

**E < 50 nJ**

**Conductive / Dissipative**
controlled potential equalization

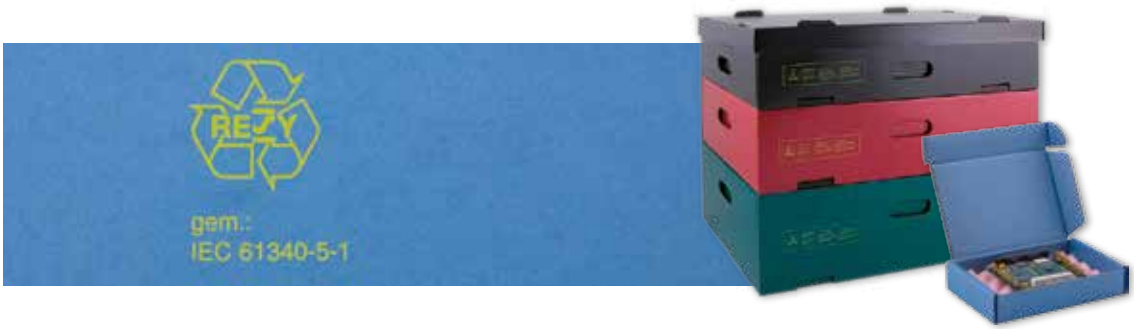
## Applications

**CORSTAT™** and **CORTRONIC®** is a proven, versatile cardboard ESD shielding material developed especially for today's electronic industry. Products made of **CORTRONIC®** include component boxes, PCB transit boxes, IC tube boxes, inplant handlers for PCBs and custom applications.



# CORSTAT™
# CORTRONIC®

| Technical Facts | CORSTAT™ | CORTRONIC® |
|---|---|---|
| **Electrical** | | |
| Surface resistance<br>Core layer<br>(1- or 2-layer)<br>No heavy metall | | $< 10^2$ |
| Surface resistance of integrated mid layer | $< 10^4$ | |
| Surface resistance outer layer | $10^{5-6}$ | $10^{7-8}$ |
| Controlled potential equalization | yes | yes |
| Tribocharging | none | none |
| Surface colours | Black | Blue as a standard |
| Energy Bag Test<br>ANSI / ESD STM 11-31<br>IEC 61340-4-8 | $<$ 20 nJ | $<$ 10 nJ |
| **Chemical** | | |
| Corrosion | none | none |
| Galvanic potetial | none | none |
| Recyclability | Resy 0062 | Resy 0062 |
| **Mechanical** | | |
| Resistance to abrasion<br>(varnished surface) | yes | yes |
| Printability | limited | limited |
| Moisture | no limitation of the electrical features | no limitation of the electrical features |
| **Specifications** | | |
| Equivalent of | ANSI/ESD S541 | ANSI/ESD S541 |
| Equivalent of | DIN EN 61340-5-3 | DIN EN 61340-5-3 |
| Protected by | Patent given | Patent given |
| No subject to RoHS-guidelines (2002/95/EG and 2002/96/EG) | | |
| **Weight example** | | |
| L 600 W 400 H 120 mm | 0,58 kg | 0,58 kg |



## The Environment

**COR**TRONIC® packaging can withstand repeated use without loss of electrical properties. In the end, it can be recycled in the waste paper stream.

# CORSTAT™
# CORTRONIC®

**User information for**
**COR**STAT™**/COR**TRONIC®**/DISSIPATIV**

**Logistical requirements**

**Location and transport**
Requirement due to
IEC 61340-5-1

**Type of coating**

**Procurement**

## AVAILABILITY
of our complete product range of
**COR**STAT™ und **COR**TRONIC®
from stock

## Product / Component

**Transport Packaging** | **Storage Packaging** | **Transport Packaging**

**Inside an EPA & ESD-Area**
(EPA = Electrostatic Protected Area,
ESD = Electrostatic Discharge)

» **conductive**
$1 \times 10^2$ Ohm $\leq R_S < 1 \times 10^4$ Ohm
or
» **dissipative**
$1 \times 10^4$ Ohm $\leq R_S < 1 \times 10^{11}$ Ohm

**Outside an EPA / unmonitored areas**
(regular properties)

» **conductive**
$1 \times 10^2$ Ohm $\leq R_S < 1 \times 10^4$ Ohm
or
» **dissipative**
$1 \times 10^4$ Ohm $\leq R_S < 1 \times 10^{11}$ Ohm
and
» **protection against discharge**
$< 50$ nJ

**COR**TRONIC® ($10^7$ – $10^8$ Ohm incl. shielding)
**COR**STAT™ ($10^5$ – $10^6$ Ohm incl. shielding)
**DISSIPATIVE** ($10^7$ – $10^{11}$ Ohm)

**COR**TRONIC® ($10^7$ – $10^8$ Ohm incl. shielding)
**COR**STAT™ ($10^5$ – $10^6$ Ohm incl. shielding)

Ready-to-use packaging and containers out of our stock program (see following pages)
**Your advantage:** quick delivery, no tool-costs, small quantities possible

**Individual Solutions** »

Please contact your dealer / sales consultant (see last page)
We are able to produce customized solutions regarding your wishes: size, quantities, print etc.

# CORSTAT™
# CORTRONIC®

## Containers For Shipment

Standard color: blue

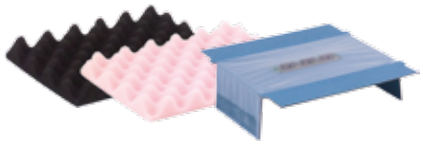
## PCB transit boxes with printed warning

**COR**TRONIC® Assembled boxes lined with conductive profiled soft foam and conductive pin-insertion foam

| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **01-TVS** | 40 | 40 | 15 |
| **02-TVS** | 62 | 62 | 25 |

**COR**TRONIC® Flat packed boxes, empty

| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **05-TVS** | 100 | 55 | 25 |
| **10-TVS** | 183 | 127 | 38 |
| **15-TVS** | 178 | 127 | 64 |
| **20-TVS** | 190 | 135 | 40 |
| **30-TVS** | 250 | 191 | 38 |
| **40-TVS** | 250 | 191 | 64 |
| **45-TVS** | 250 | 191 | 110 |
| **50-TVS** | 267 | 216 | 64 |
| **55-TVS** | 300 | 300 | 100 |
| **57-TVS** | 380 | 280 | 60 |
| **60-TVS** | 420 | 220 | 40 |
| **65-TVS** | 420 | 220 | 65 |



## Inserts for PCB transit boxes

| **Profiled Foam**<br>Profiled 20 mm, dissipative pink foam | **Flatpac**<br>Dissipative stretch film base to hold PCB or flat components |
|---|---|
| **Ref** | **Ref** |
| 05-NS as | 05-DFP* |
| 10-NS as | 10-DFP |
| 15-NS as | 15-DFP |
| 20-NS as | 20-DFP |
| 30-NS as | 30-DFP |
| 40-NS as | 40-DFP |
| 45-NS as | 45-DFP |
| 50-NS as | 50-DFP |
| 55-NS as | 55-DFP |
| 57-NS as | 57-DFP |
| 60-NS as | 60-DFP** |
| 65-NS as | 65-DFP** |

* Dissipative function of profiled foam lasts 6 months
* Dissipative function of the foil lats appr. 6 months
** on request

## On Request: Inserts for TVS

**Foam bar dissipative**
assembled in corresponding TVS

**Foam grid dissipative**
assembled in corresponding TVS

## Korrvu Conductiv

**COR**TRONIC® Transit box
incl. fixing foil

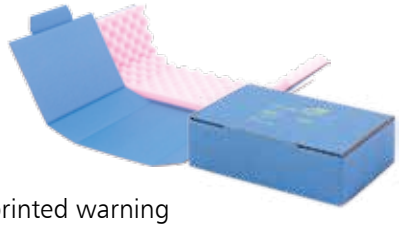
| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **20-KC** | 125 | 107 | 25 |
| **30-KC** | 160 | 127 | 34 |
| **40-KC** | 235 | 175 | 45 |
| **50-KC** | 282 | 228 | 70 |
| **60-KC** | 360 | 245 | 70 |

* Dissipative function of the foil lasts appr. 6 months

## Shipment bosex

**COR**TRONIC®
with printed warning

| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **10-TKVS** | 135 | 195 | 25 |
| **20-TKVS** | 135 | 195 | 65 |
| **30-TKVS** | 268 | 190 | 45 |



## COR-Pack with printed warning
## CORTRONIC® Transit box

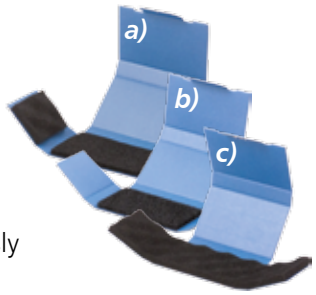
with dissipative profiled foam* (20 mm) or conductive foam

| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **05-TCP** | 150 | 115 | 40 |
| **10-TCP** | 200 | 140 | 50 |
| **20-TCP** | 280 | 140 | 100 |

* Dissipative function of pink profiled foam lasts 6 months

## Component boxes
with printed warning
## CORTRONIC® Transit box

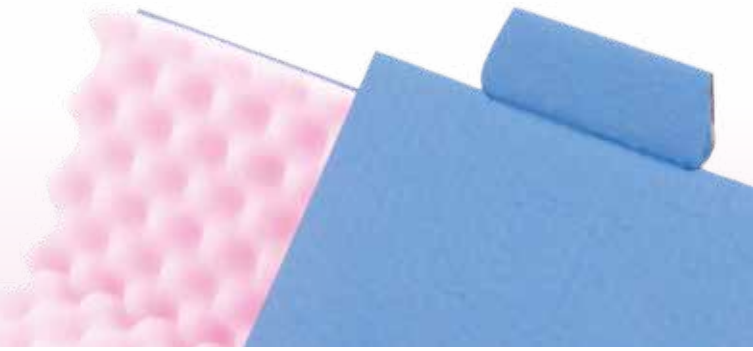
with conductive foam:
a) PE-foam (6 mm) +
profiled foam (10 mm)
b) PE-foam (6 mm)
c) Profiled foam (10 mm) continuously




| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **05-TEP** | 95 | 30 | 15 |
| **10-TEP** | 100 | 60 | 15 |
| **15-TEP** | 100 | 60 | 30 |
| **20-TEP** | 120 | 100 | 15 |
| **30-TEP** | 155 | 70 | 25 |

## AVAILABILITY

of our complete product range of
**COR**STAT™ und **COR**TRONIC®
from stock



# CORSTAT™
# CORTRONIC®

## Container For Production And Storage

Outside of container is treated with water-/scratch-resistant coating

Standard color: black

### Reel Box CORSTAT™

| Ref | Inner dimensions, mm | | | Reels Ø mm |
|---|---|---|---|---|
| **10-CRB** | 380 | 180 | 100 | 180, max. 16 Reel |
| **30-CRB** | 355 | 286 | 220 | 380, max. 5 Reel |

### Storage box, open CORSTAT™

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **05-CLBO** | 180 | 62 | 65 | 202 | 70 | 70 |
| **10-CLBO** | 285 | 150 | 110 | 305 | 159 | 115 |
| **15-CLBO** | 292 | 109 | 122 | 313 | 116 | 127 |
| **20-CLBO** | 580 | 65 | 65 | 600 | 73 | 66 |
| **30-CLBO** | 592 | 109 | 122 | 611 | 117 | 127 |
| **40-CLBO** | 592 | 153 | 70 | 611 | 161 | 75 |
| **45-CLBO** | 590 | 200 | 180 | 609 | 209 | 185 |
| **50-CLBO** | 615 | 100 | 130 | 634 | 108 | 135 |

### Tube Box, closed, CORSTAT™

for IC bars, with printed warning

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **05-CTB** | 600 | 95 | 45 | 610 | 113 | 51 |
| **10-CTB** | 590 | 95 | 95 | 600 | 113 | 101 |

### Tube Box Fifo CORSTAT™

for IC bars

| Ref | Inner dimensions, mm | | | Outer dimensions, mm with lid | | |
|---|---|---|---|---|---|---|
| **10-CFI** | 600 | 50 | 100 | 623 | 75 | 106 |

## IC bar magazine CORSTAT™

NEW

stackable, 5 slots

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **10-ICM** | 336 | 586 | 35 | 399 | 599 | 39 |

# Accessories For Production, Storage And Shipment

## Horizontal divider

for 48 / 50-TSC, CSC, MB, **dissipative**, black with 2 bevelled corners

| Ref | Dimensions, mm | |
|---|---|---|
| **05-DZW** | 357 | 246 |
| **10-DZW** | 550 | 350 |

## Ring binder

**dissipative,** blue, DIN A4

| Ref | Inner dimensions, mm | | |
|---|---|---|---|
| **10-DRO** | 317 | 245 | 30 |

## Adhesive tape, black

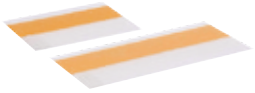
needed to erect 30, 40, 45 and 50-TSC

| Ref | Lenght m | Width mm |
|---|---|---|
| **10-KB** | 66 | 50 |

## Hanging files ESD Folder

**dissipative,** black for documents

| Ref | Dimensions, mm | |
|---|---|---|
| **10-DF** | 564 | 319 |



## Label holder

**dissipative,** self-adhessive, clear frosted, further dimensions on request

| Ref | Dimensions, mm | |
|---|---|---|
| **05-LT** | 140 | 100 |
| **10-LT** | 210 | 100 |

## Loose-leaf binder

**dissipative,** black for documents

| Ref | Dimensions, mm | | |
|---|---|---|---|
| **10-DSH** | 315 | 235 | 8 |

# CORSTAT™
# CORTRONIC®

## Container For Production, Storage And Shipment

Standard color: black

### In-plant handler CORTRONIC®

with printed warning

It is possible to double the width of the compartments by removing longitudinal partitions. Partitions are static dissipative. For 30, 40, 45 and 50-TSC adhesive tape is needed (sold separately)

| Ref | Inner Dimensions, mm | | | Cell dimensions, mm | | | No. of | No. of short | No. of long | Outer Dimensions, mm with lid | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | W | H | L | W | H | cells | dividers | dividers | L | W | H |
| **10-TSC** | 270 | 169 | 195 | 130 | 24 | 195 | 12 | 1 | 5 | 297 | 181 | 204 |
| | | | | 265 | 24 | 195 | 6 | | 5 | | | |
| **15-TSC** | 372 | 388 | 84 | 109 | 18 | 84 | 60 | 19 | 4 | 400 | 400 | 100 |
| | | | | 165 | 18 | 84 | 40 | 19 | 3 | | | |
| **20-TSC** | 386 | 386 | 176 | 110 | 30 | 175 | 30 | 4 | 9 | 415 | 405 | 190 |
| | | | | 168 | 30 | 175 | 20 | 3 | 9 | | | |
| | | | | 340 | 30 | 175 | 10 | 2 | 9 | | | |
| | | | * | 353 | 30 | 175 | 10 | 2 | 9 | | | |
| **30-TSC** | 386 | 386 | 358 | 168 | 35 | 350 | 18 | 8 | 3 | 415 | 405 | 365 |
| | | | | 340 | 35 | 350 | 9 | 8 | 2 | | | |
| **40-TSC** | 424 | 272 | 281 | 178 | 18 | 280 | 22 | 3 | 10 | 450 | 290 | 290 |
| | | | | 365 | 18 | 280 | 11 | 2 | 10 | | | |
| | | | * | 117 | 22 | 280 | 30 | 16 | 3 | | | |
| | | | * | 238 | 22 | 280 | 15 | 16 | 2 | | | |
| **45-TSC** | 493 | 390 | 166 | 178 | 45 | 166 | 20 | 9 | 3 | 510 | 410 | 175 |
| | | | | 360 | 45 | 166 | 10 | 9 | 2 | | | |
| **48-TSC** | 562 | 355 | 150 | 123 | 24 | 150 | 44 | 5 | 10 | 595 | 380 | 160 |
| | | | | 165 | 24 | 150 | 33 | 4 | 10 | | | |
| | | | | 250 | 24 | 150 | 22 | 3 | 10 | | | |
| | | | | 515 | 24 | 150 | 11 | 2 | 10 | | | |
| **50-TSC** | 562 | 355 | 329 | 123 | 24 | 325 | 44 | 5 | 10 | 595 | 380 | 335 |
| | | | | 165 | 24 | 325 | 33 | 4 | 10 | | | |
| | | | | 250 | 24 | 325 | 22 | 3 | 10 | | | |
| | | | | 515 | 24 | 325 | 11 | 2 | 10 | | | |

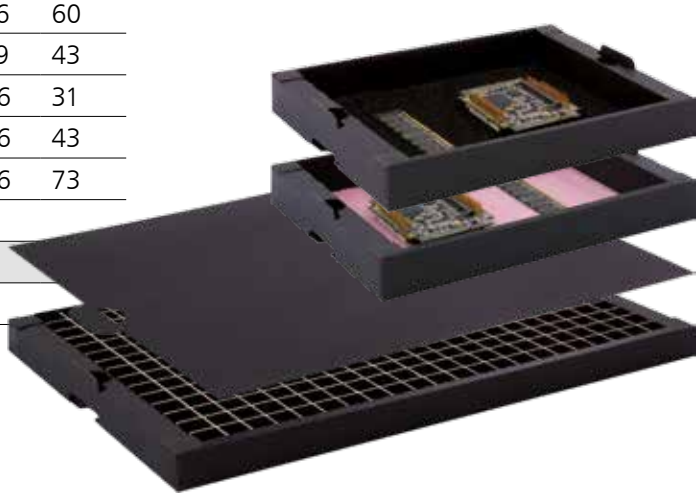
* on request

## Tray CORSTAT™

Stackable, Made to fit 48-TSC and 50-TSC / CSC boxes.
Either with or without foam.
Use code suffix: as = dissipative el = conductive

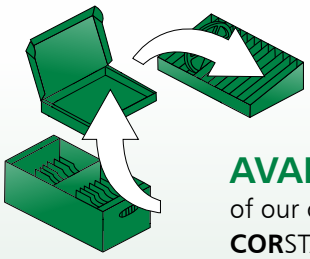
| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **05-CTR** | 297 | 230 | 28 | 351 | 246 | 31 |
| **06-CTR** | 297 | 230 | 55 | 351 | 246 | 60 |
| **07-CTR** | 305 | 243 | 40 | 358 | 259 | 43 |
| **20-CTR** | 499 | 330 | 28 | 550 | 346 | 31 |
| **25-CTR** | 499 | 330 | 40 | 550 | 346 | 43 |
| **30-CTR** | 499 | 330 | 70 | 550 | 346 | 73 |

| Cover (solid board) | | |
|---|---|---|
| **20-30-CTR D** | 593 | 343 |



## CTR partition inserts (solid board) CORSTAT™

| Ref | Dimensions, mm - all over L | W | H | Cell dimensions mm | No. of cells | No. of short partitions | No. of long partitions |
|---|---|---|---|---|---|---|---|
| **05-CTR Set** | 295 | 228 | 28 | 20 × 21 | 130 | 12 | 9 |
| **20-CTR Set** | 497 | 328 | 28 | 20 × 20 | 330 | 21 | 14 |



## AVAILABILITY

of our complete product range of
**COR**STAT™ und **COR**TRONIC®
from stock

# **COR**STAT™
# **COR**TRONIC®

## Container For Production, Storage And Shipment

Outside of container is treated with water-/scratch-resistant coating

Standard color: black

## Multibox
### **COR**TRONIC® and **COR**TEC

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **10-MB** | 565 | 365 | 109 | 591 | 391 | 114 |
| **20-MB** | 565 | 365 | 209 | 591 | 391 | 214 |

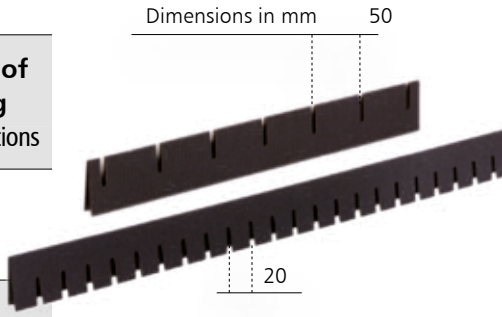
## Multibox lid
### **COR**TRONIC® and **COR**TEC

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **10-20-MBD** | 593 | 393 | 50 | 603 | 397 | 53 |

## Multibox partitions

for 10-20-MB

| Ref | Cell dimension, mm all over L | W | H | No. of cells max. | No. of short partitions | No. of long partitions |
|---|---|---|---|---|---|---|
| 100/200-MB-K or L, height of divider is ref.-nr. | 50 | 20 | 100-200 | 138 | 22 | 7 |
| | | | | **No. of slots** | | |
| **Short partition** | 352 | | 100-200 | 7 | | |
| **Long partition** | 552 | | 100-200 | 22 | | |
| Partitions singly available, individually sized compartments possible | | | | | | |



## Customer-Store-Container in colorful variety

**COR**TRONIC® - can be used with or without lid

| Ref | Inner dimension, mm (without stacking lug) | | | Outer dimension, mm (without stacking lug and lid) | | |
|---|---|---|---|---|---|---|
| **03-CSC** | 362 | 251 | 60 | 389 | 278 | 67 |
| **05-CSC** | 362 | 251 | 100 | 389 | 278 | 107 |
| **10-CSC** | 362 | 251 | 139 | 389 | 278 | 146 |
| **15-CSC** | 362 | 251 | 220 | 389 | 278 | 227 |
| **17-CSC** | 551 | 362 | 60 | 578 | 389 | 67 |
| **19-CSC** | 551 | 362 | 100 | 578 | 389 | 107 |
| **20-CSC** | 551 | 362 | 139 | 578 | 389 | 146 |
| **30-CSC** | 551 | 362 | 172 | 578 | 389 | 179 |
| **35-CSC** | 551 | 362 | 220 | 578 | 389 | 227 |
| **36-CSC*** | 550 | 365 | 300 | 578 | 389 | 307 |
| **40-CSC*** | 550 | 365 | 400 | 578 | 389 | 410 |

* For 36-CSC and 40-CSC no dividers available

### Colorful variety:

» Red
» Blue
» Green
» Black

## Customer-Store lid

**COR**TRONIC®

| Ref | Inner dimensions, mm | | | Outer dimensions, mm | | |
|---|---|---|---|---|---|---|
| **03-15-CSCD** | 388 | 281 | 30 | 399 | 299 | 35 |
| **17-40-CSCD** | 581 | 392 | 40 | 599 | 399 | 45 |

### On request:

» Sliding boxesl
» Box-in-box solutions
» Ready-to-use solutions

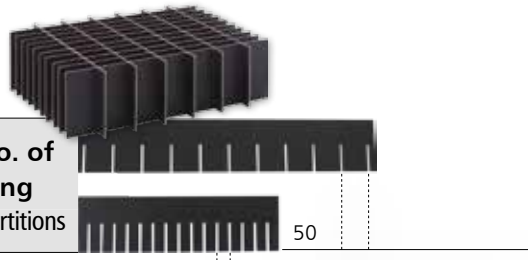
# CORSTAT™
# CORTRONIC®

## Container For Production, Storage And Shipment

Outside of container is treated with water-/scratch-resistant coating

Standard color: black

### CSC partition inserts (solid board)
### CORSTAT™ – for 03 - 15 CSC

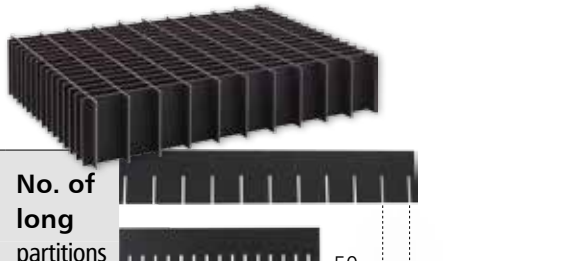



| Ref | Cell dimension, mm all over L | W | H | No. of cells max. | No. of short partitions | No. of long partitions |
|---|---|---|---|---|---|---|
| e.g. 03-CSCK or. L box name is ref.-no. | 50 | 20 | 60-100-139-220 | 77 | 6 | 10 |

| | | | No. of slots |
|---|---|---|---|
| **Short partition** | 249 | 60-100-139-220 | 10 |
| **Long partition** | 360 | 60-100-139-220 | 6 |

Partitions singly available, for this reason individually sized compartments possible. Available assembled or disassembled.

### CSC Stegeinsätze Vollpappe
### CORSTAT™ – für 17 - 35 CSC




| Ref | Cell dimension, mm all over L | W | H | Anzahl Fächer max. | No. of short partitions | No. of long partitions |
|---|---|---|---|---|---|---|
| e.g. 17-CSCK or L box name is ref.-no | 50 | 20 | 60-100-139-172-220 | 160 | 11 | 15 |

| | | | No. of slots |
|---|---|---|---|
| **Short partition** | 360 | 60-100-139-172-220 | 15 |
| **Long partition** | 549 | 60-100-139-172-220 | 11 |

Partitions singly available, for this reason individually sized compartments possible. Available assembled or disassembledr.

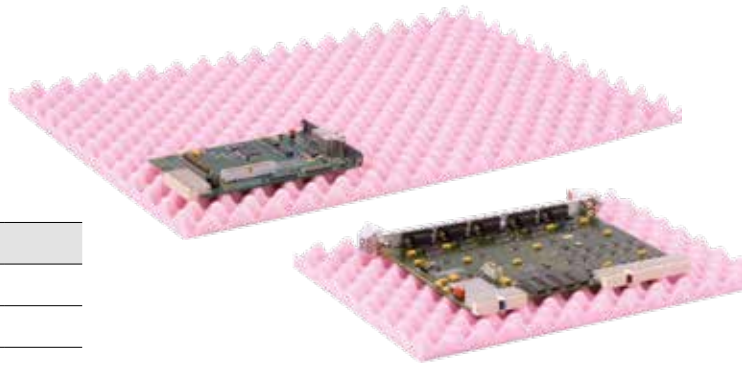
**AVAILABILITY**
of our complete product range of
**COR**STAT™ und **COR**TRONIC®
from stock

## Profiled foam for CSC

dissipative pink* (on request: black, conductive)

| Ref | Dimensions, mm | | |
|---|---|---|---|
| **03 bis 15-CSC** | 361 | 250 | 20 |
| **17 bis 40-CSC** | 550 | 361 | 20 |

* Dissipative function of pink profiled foam lasts 6 months



## CSC inserts „Box in Box“
## CORSTAT™

for 17 CSC and 19 CSC

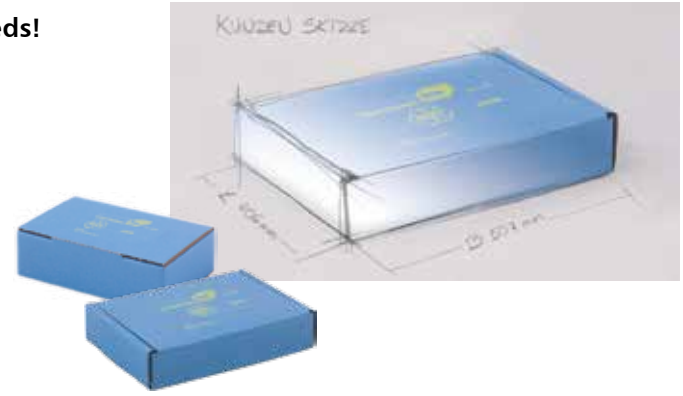
| Re | Dimensions, mm | | | No. of boxes per container |
|---|---|---|---|---|
| **17-CB1/8** | 162 | 119 | 56 | 8x |
| **17-CB1/4** | 256 | 162 | 56 | 4x |
| **19-CB1/4** | 163 | 128 | 95 | 8x |
| **19-CB1/8** | 265 | 163 | 95 | 4x |

# CORSTAT™
# CORTRONIC®

## Standard Products Made For Quick Supply

**Custom-made items meet your special needs!**

Some ESD sensitive products have special packaging or handling requirements. **COR**TRONIC®'s versatility makes it possible for us to meet all your requirements, whether from stock or custom-made.



**For shipping ESD sensitive parts:**

- EPROM packaging
- Dispatch boxes with profiled foam or foil
- Constructive dispatch boxes
- **COR**PACK with profiled foam

**For production, in-plant handling and storage:**

- Stackable boxes
- Trays
- Reels, reel holders
- Storage boxes open and storage boxes stackable
- Partitioned boxes
- Multibox
- Fifo-Box

**Worldwide availability!**

**COR**STAT™ and **COR**TRONIC® are used over decades in all parts of the world. Just call us oder visit us on the web to find our your next dealer.

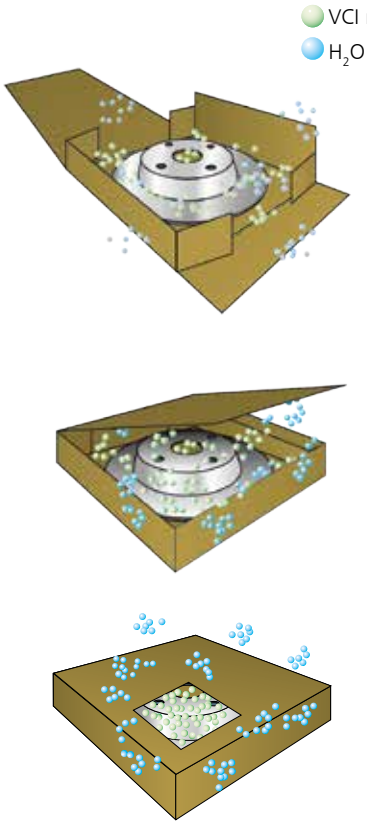
# Corrosion Protection Of The Future

**CORRUST®**

# VCI Corrosion Protection Included

**Protection against rust**

Rust destroys metal. Rust is generated when sulphur dioxide and chloride are oxidised – such as by exposure to humid air. Therefore corrosion protection particularily is important when transporting and storing ferrous and non-ferrous metals for longer periods of time.



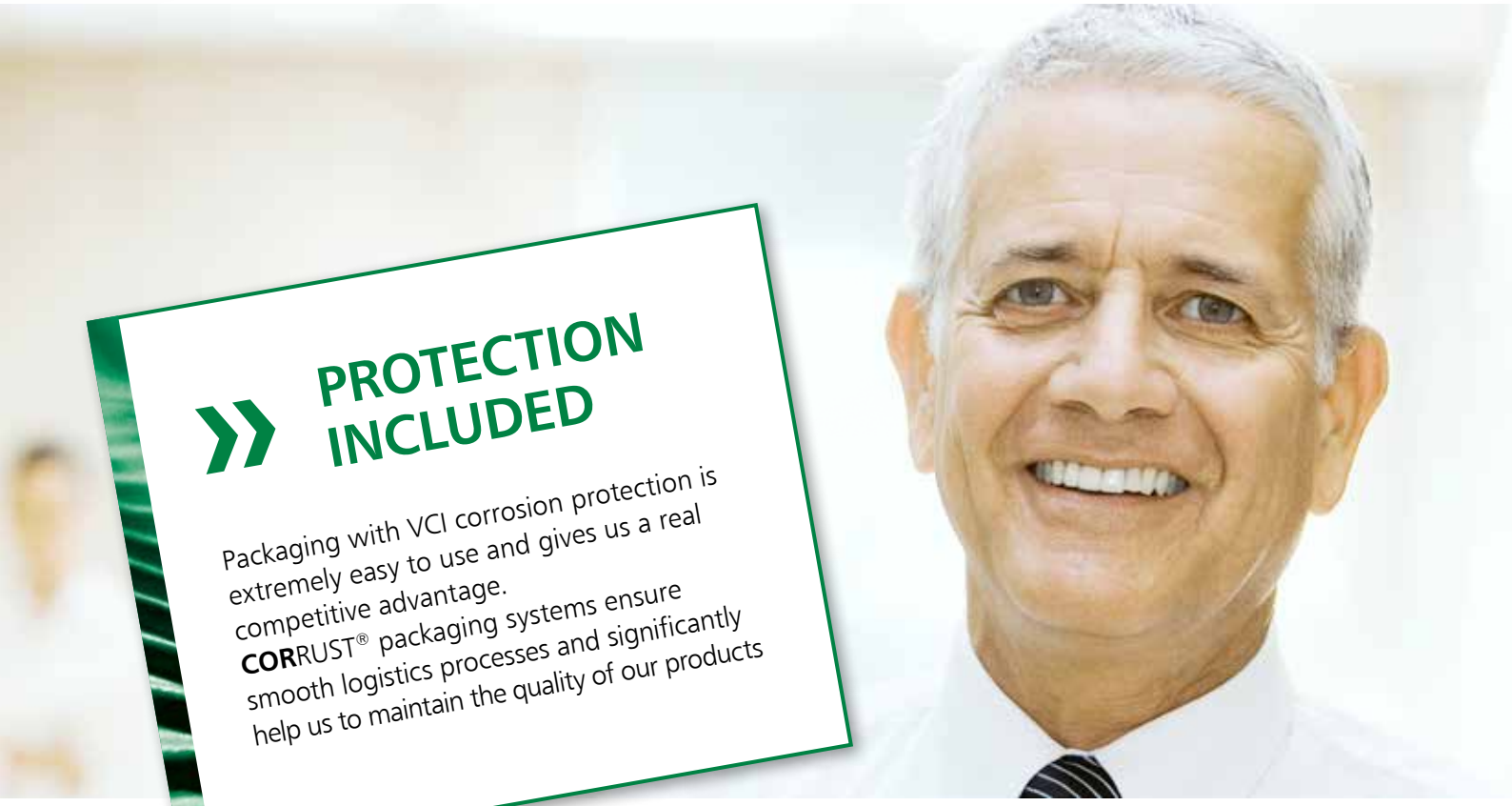

**CORRUST® – A forward thinking principle**

**CORRUST®** is a packaging system made from VCI-coated corrugated cardboard. This generously applied coating releases VCI molecules into the atmosphere inside the packaging – which subsequently comprises the actual corrosion protection.

Due to their polar character, these molecules attach to the surface of the metal products inside the packaging and thus prevent (passivate) the metal surface from reacting with oxygen.

The VCI coating applied to the corrugated cardboard is adjusted specifically to the packaging's relevant purpose and therefore ensures that the packaging's interior is always adequately saturated with VCI, and consequently provides long time protection for your product.

VCI: Volatile Corrosion Inhibitor



## PROTECTION INCLUDED

Packaging with VCI corrosion protection is extremely easy to use and gives us a real competitive advantage.
**COR**RUST® packaging systems ensure smooth logistics processes and significantly help us to maintain the quality of our products

### Protecting the environment

Corrosion damage not only affects trade, but also has an impact on the environment. **COR**RUST® is 100% recyclable and therefore ideal for humans and the environment, but also a safe choice when it comes to logistic costs.

*We are able to simulate your shipmend process in all relevant climate conditions to assure the best possible protection of your products.*

### Wrap - unwrap - and not a spot of rust inside

Traditionally, anti-corrosion packaging for transporting and shipping metal products entails coating a product in grease or a similar corrosion-inhibiting substance, then wrapping it, and then removing the coating again – all of which takes up quite a lot of time, which, ultimately, can drastically impact on the entire logistics chain. However, **COR**RUST® anti-corrosion packaging now makes this labour-intensive process a thing of the past, does not require any investments in corresponding washing systems or solvents and has been reduced to just that: Wrap, unwrap – and not a spot of rust in sight!

# CORRUST®

## Safety

Corrugated cardboard packages are hygroscopic, i.e. they attract and absorb moisture from the air. This is an extremely useful feature since the cardboard can thus be used to hold large quantities of VCI. The **COR**RUST® VCI coating then forms a perfect barrier between the corrugated cardboard and the product inside. CORRUST® packaging systems can also, on request, be supplied with a moisture-repellent coating on the outside, which makes the system even more efficient for transporting products under difficult climatic conditions.

## Protection categories

**E** For protecting ferrous metals, chromium, nickel, silicon aluminium alloys, partially galvanized steel, GGL and GGG

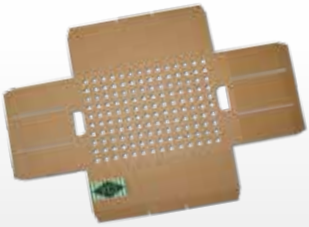
**NE (C)** For protecting copper, brass, bronze, nickel silver, copper and manganese aluminium alloys

**NE (S)** For protecting magnesium and magnesium alloys, silver and manganese

**MM** For protecting combinations of ferrous and non-ferrous metals, zinc and manganese aluminium alloys, galvanized steel, zinc and copper materials

## Example products

Pre-cuts / sheets

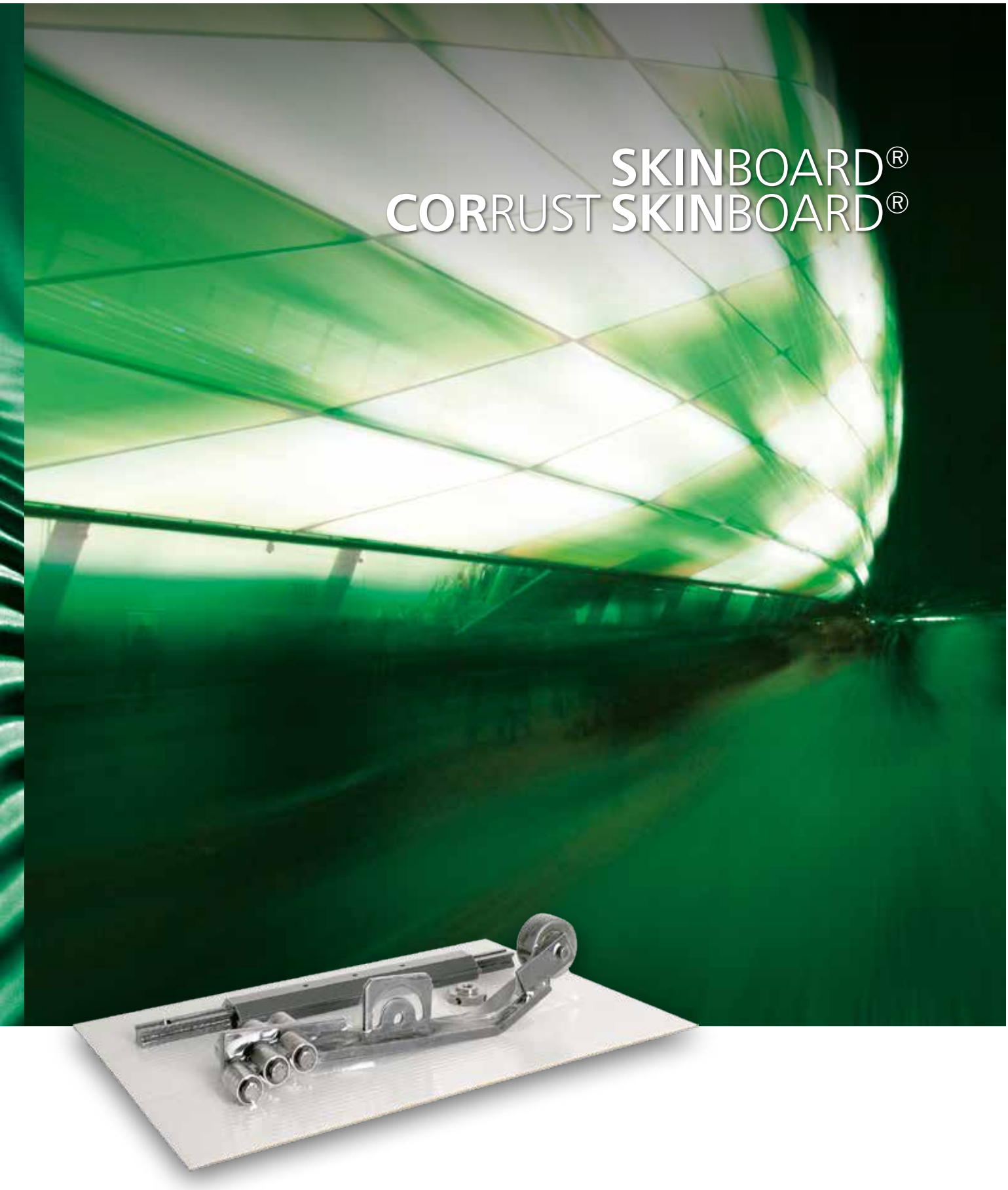


Cut to size

Partitions / Inserts

RSC / American Boxes

# SKINBOARD®
# CORRUST SKINBOARD®



## Skin Thight Protection

# **SKIN**BOARD®
# **COR**RUST **SKIN**BOARD®

## Product Safety And Outstanding Presentation.

With **SKIN**BOARD® tight skin foil wrapping, excellent fixture of the goods on the board is combined with attractive product presentation. The foil and the corrugated cardboard are sealed together by what is known as fibre cut.
This bonding method determines the characteristic properties of the packaging: When unpacking the product, a layer of paper remains attached to the foil, making the **SKIN**BOARD® packaging very easy to handle.

Thanks to the use of high-strength adhesive, even heavy parts can be safety fixed to the cardboard for attractive presentation and increased sales.

***Versatile skin packaging***
*Strong, variable and functional: Introducing the professional packaging solution for your fragile products.*

***SKIN**BOARD® is a coated corrugated board with enhanced adhesion properties for skin film packaging*

**Options included as standard!**

**Release function:**
For small fragile parts of low weight, the strength of the bond between the film and the cardboard must be reduced to a defined value. Special coats ensure that even the most delicate products can be properly positioned on the board and can be easily removed.

***SKIN**BOARD® is suitable for packaging with skin foils made in PE and Surlyn®.*

## GUARANTEED QUALITY

As a product engineer for technically advanced components that are susceptible to corrosion, I trust **COR**RUST® **SKIN**BOARD® packaging from HANS KOLB Wellpappe.

**COR**RUST **SKIN**BOARD®

**COR**RUST **SKIN**BOARD® products offer optimised protection against corrosion for sensitive products. The corrosion protection properties can be individually chosen, depending on the material properties of the packed goods.

We offer the following options:
**Schutz für**
» Steel/iron, chromium
» Brass, copper, bronze
» Magnesium and magnesium alloys, silver
» Multi-metal protection for products made from various metals

# **SKIN**BOARD®
# **COR**RUST **SKIN**BOARD®

**The perfect solution**

The coated corrugated cardboard of the **KOLB** CoatedProducts® range is the ideal material for protective and sturdy packaging for products that are easily damaged by impact. It offers a range of advantages and thus meets the requirements of customers in a wide range of industries.

With **SKIN**BOARD® we offer you an innovative product made in functional corrugated' board that can be printed with your individual designs..

**SKIN**BOARD® and **COR**RUST **SKIN**BOARD® are suitable for combination with all current skin foils. For **COR**RUST **SKIN**BOARD® we recommend using VCI skin foils.

To develop your customised packaging solution, we need the following information:

- Properties of goods to be packed (material properties, size and weight)?
- Required skin format?
- Corrosion protection required?
- Quantity?
- Printing required?

If desired, we produce a sample packaging for your products free of charge. Why not visit our premises to discuss your ideas with us and to see how **SKIN**BOARD® is processed on our skin packaging machine?

*Thanks to a skin tight foil cover the product will be both packed and presented in an outstanding manner.*

**VCI – Volatile Corrosion Inhibitor**

VCI stands for vapour and volatile corrosion inhibitor and describes a process by which molecules from the skin/VCI coating evaporate and saturate the air inside the packaging. Due to their bi-polar character, these particles attach themselves to the surface of the metal products and fill recesses, thus preventing chemical reactions with oxygen on these surfaces (passivation).

Particles lost through evaporation are replaced by evaporation of more VCI molecules from the coating, so that saturation of the air inside the packaging is ensured at all times.

**Result: Dry preservation of the product, doing away with time-consuming and costly conventional preservation and cleaning measures.**

# **SKIN**BOARD®
# **COR**RUST **SKIN**BOARD®

**Skin packaging – on corrugated cardboard carrier material**

» **Advantages:**
» Highly dynamic protection for products that are sensitive to shock
» Excellent stability thanks to fluted profile
» No disintegration of the corrugated cardboard layers by the foil restoring forces (special gluing of the individual paper layers)
» Integrated corrosion protection (with **COR**RUST **SKIN**BOARD®)
» Recyclable (paper cycle)
»
» **The skin surface:**
» Optimum bonding between corrugated cardboard and foil
» Outstanding vacuum properties
» Suitable for multicolor print on both sides

## Your Choice!

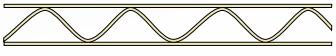
**The size:** All skin sizes

**The board type:** (Scale 1:1)

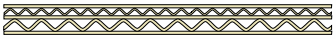
E-Flute

B-Flute

C-Flute

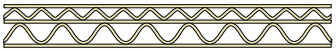


FE-Flute

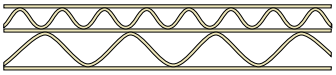


EE-Flute

EB-Flute



BC-Flute



**The skin layer:** **SKIN**BOARD® or **COR**RUST **SKIN**BOARD®
**The finish:** Color / print pattern

# Types, Sizes, Dimensions

**COR**RUST®
**COR**RUST® corrugated cardboard packaging systems can be supplied in all shapes and sizes with features and properties most suited to meet your specific requirements. There is only one thing they all have in common: A high level of corrosion protection!

**COR**RUST **SKIN**BOARD®
**COR**RUST **SKIN**BOARD® features fully integrated corrosion protection and therefore offers maximum protection for vacuum-packed products.

**COR**RUST® Flex
This flexible VCI corrugated cardboard has been specifically designed to allow products with irregular shapes to be easily packaged and offers them maximum corrosion protection.

All **COR**RUST® packaging systems are available in all of the most common DIN corrugated cardboard types and/or – depending on their intended use – can be made specifically and totally to your specifications.

**Product information**

The above information is correct to the best of our knowledge and reflects the latest **COR**RUST® developments. Depending on the product to be packaged, the basic features of the different **COR**RUST® packaging types may vary. We are therefore unable to provide a universal warranty for our products. However, we are always happy to conduct tests with our customers to ascertain the level of corrosion protection needed for specific packaging solutions.

# **KOLB** CoatedProducts®

**No „entry“:**

With special coatings against moisture not only your product will be protected – even the area around the Air-Pet-Box is secured of „animals moisture“ in nervous situations.

**Grease, moisture and mould – we have something against them!**

**Grease-resistant coating**
Oily and greasy products such as ball bearings should be safely and securely packed throughout dispatch and storage. Thanks to the grease-resistant coating system from **KOLB CoatedProducts®** protection from grease is guaranteed throughout the entire duration of logistics and dispatch.

**Moisture-resistant coating**
Moisture is the natural enemy of corrugated board packaging. But not where the moisture-resistant special coating on **KOLB Coated Products®** is concerned. Special hardened varnish creates a highly efficient barrier against any kind of moisture.

**Anti-mould coating**
To prevent the formation of fungus or mould we have developed storage containers that provide the maximum possible product protection even in damp and badly ventilated storage atmospheres.

**Wax coating**
Whether as an insert or a complete export package, products can be sent on their way securely packed thanks to a special wax coating – even in hard climatic conditions.

***Variety for all needs:***
*Different parafinum coatings are the perfect protection as you like it.*

**FlameRetard**

is our name for the flame-retardant coated corrugated board for display presentations and packaging for packed items with special security requirements.

Depending on your requirements we will reach several building classes.

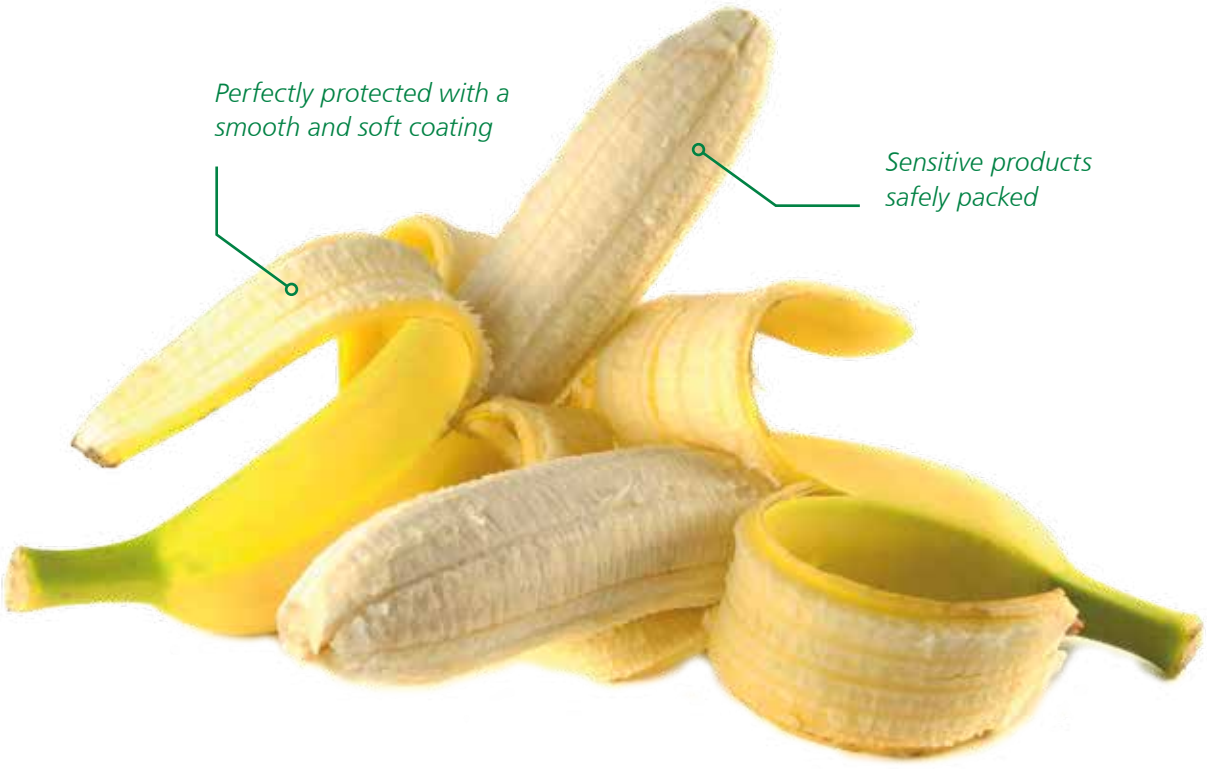
**Stop & Go: non-slip and sliding coatings**

Packages or intermediate layers that have adhesive or gliding properties are used either to fix goods during transport or for the horizontal automatic loading of boxes and trays. Two different coatings provide different results, but they have one thing in common: process optimization and the simplification of your packaging process. Rub-resistant coatings also help you to send even rough items safely.

# **KOLB** CoatedProducts®

## Hard & Soft:
## Surface protection and secure transport for your product

Soft coatings serve to protect surface-sensitive goods. The slip-resistant function also has a positive effect on transport safety. Varnished and sensitive parts will be securely packed in a perfect manner.



# **KOLB** Logistics & Service

**Service for advanced**

The reputation of the **KOLB** Group is not only based on its high-quality products. But the quality approach also covers all aspects of delivery and just-in-time availability of our goods.

The **KOLB** logistics department has at its disposal a vehicle fleet with more than 40 trucks, and can thus guarantee just-in-time delivery and efficient order handling.

We are furthermore glad to assist you in every demand regarding packaging automation, co-packing and many more topics of state-of-the-art packaging processes.

***Our aim is „besser verpacken"***
*Packaging which is simply better, made by HANS KOLB Wellpappe.*

HANS KOLB WELLPAPPE

besser verpacken!

**HANS KOLB Wellpappe GmbH & Co. KG**
Dr.-Lauter-Straße 2
D-87700 Memmingen

Tel. +49 8331 975-0
Fax +49 8331 975-235
info@kolb-wellpappe.com

## HOTLINE:

**KOLB CoatedProducts®**
Tel. +49 8331 975 – 308
E-Mail: cp@kolb-wellpappe.com

## Our further packaging specialists at a glance

**KOLB Packaging**
Tel. +49 8331 975 – 234
E-Mail: packaging@kolb-wellpappe.com

**KOLB Print+**
Tel. +49 8331 975 – 234
E-Mail: print@kolb-wellpappe.com

**KOLB Specials**
Tel. +49 8331 975 – 395
E-Mail: specials@kolb-wellpappe.com

**KOLB Display**
Tel. +49 8331 975 – 234
E-Mail: display@kolb-wellpappe.com

Stand 11/2013

**www.kolb-wellpappe.com/cp**