

CATÁLOGO CARTONAJE ESD



HANS KOLB
COATED PRODUCTS



**better
packaging...**

SINCE 1933

*... with the **KOLB** Group and **KOLB** CoatedProducts.
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 teams of **KOLB Design** and **KNAUER Design**, the
R&D division of **KOLB** and **KNAUER**.*

*The convincing criteria for reaching your packaging goals
is a modern production environment and, above all, the
know-how of more than 1.100 committed employees.*

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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..“

Alwin J. Kolb, Angela Kolb and Dr.-Ing. Bernhard Ruffing



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.

The Company

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** and **KNAUER Design** teams 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.

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 DNA.

Among other things, we justify this with FSC-certified products that we manufacture at all KOLB and KNAUER sites. Also HANS KOLB Papier, the paper mill of the KOLB Group, also follows this self-image which has been by independent institutes.

Furthermore, we have always had a closed raw material cycle, especially in our own base paper production. After all, edge trimmings and die-cutting waste are directly recycled back into high-quality recycling liner and fluting, for which we also take the waste paper from regional suppliers.

But that's not all: our corporate culture with flat hierarchies and extremely short decision-making paths is also constantly moving us forward - without, however, disregarding what we have achieved and the experience that goes with it. The above-average length of service of our employees is impressive proof of this.

We are also aware of our social responsibility. As a sponsor of the Kinderbrücke Allgäu e. V., we have supported this regional organisation since its inception over 10 years ago. The board of trustees, which includes shareholders of our company, makes the decisions to help sick children and children in need. This is done unbureaucratically, with the necessary common sense or simply with the heart in the right place.

The majority of our production and administration sites are located in the Allgäu region. But where agriculture used to be the outstanding economic mainstay, today a balanced and at the same time specialised industry structure characterises the business location Allgäu. This also applies to the locations in Haiterbach and Dettingen / Erms.

Today we are proud of many long-standing business relationships, which justify joint growth with our customers. We will continue to pursue this development. After all, that is precisely what we mean by sustainability.





... 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.

CORTRONIC® 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

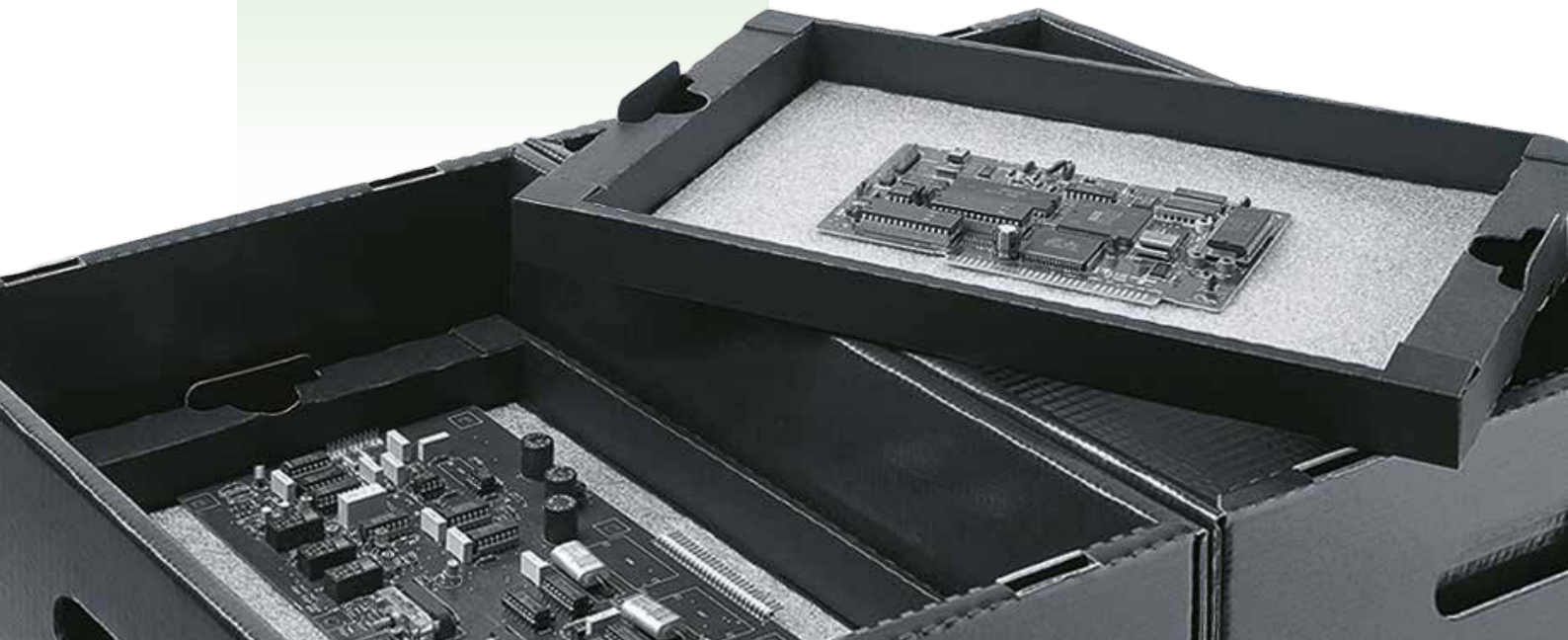
To a greater or lesser extent all contact between objects, every separation of one item from another, each sliding of one thing on another, causes a disturbance of electrical charge. When charge disturbances take place faster than charge redistribution, static charge accumulates. ESD occurs where charges 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.

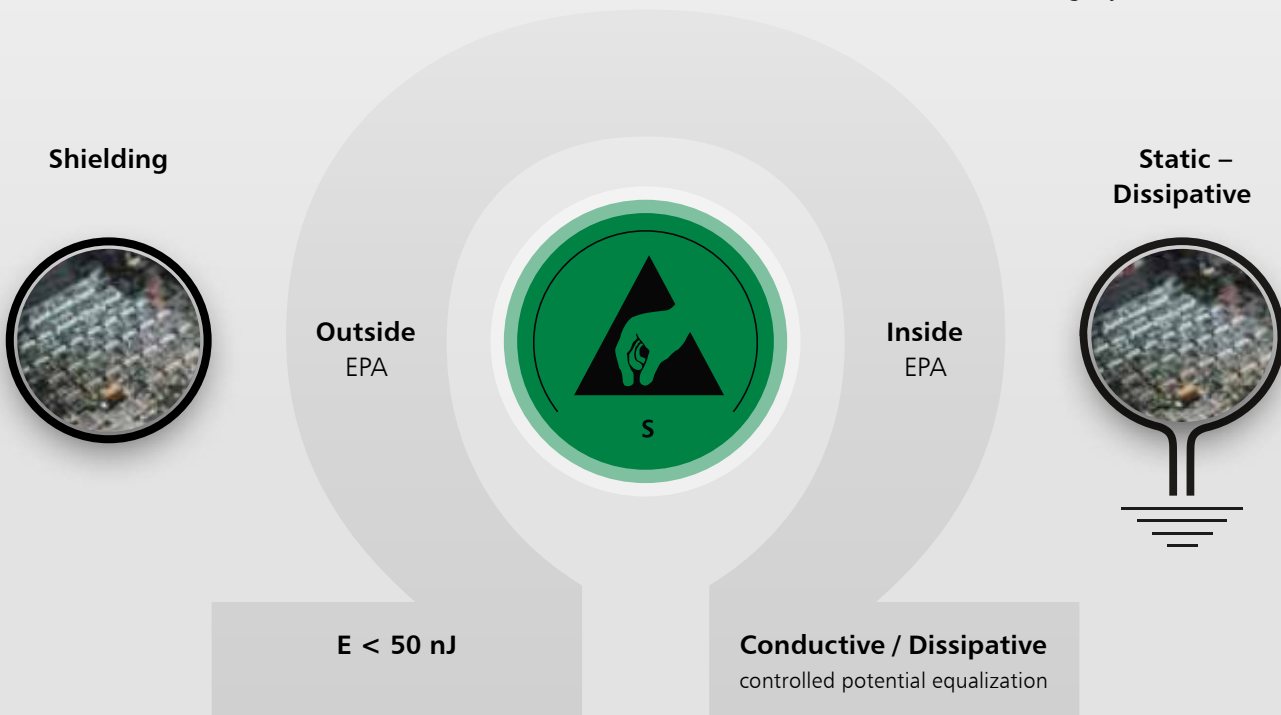
CORTRONIC® is an ideally suited packaging for ESDS and because of its static dissipative skin and buried conductive core, it is an ESD shielding material suitable for use in ESD protected areas.



**Permanent conductive –
no time limit**

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

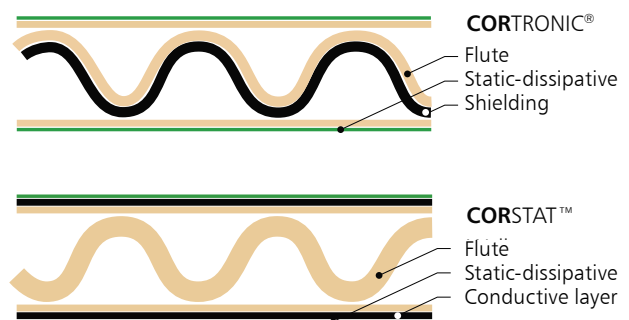
CORTRONIC® $\approx 10^{7-8}$ diverting layer Ohm
 $< 10^2$ shielding layer Ohm



Applications

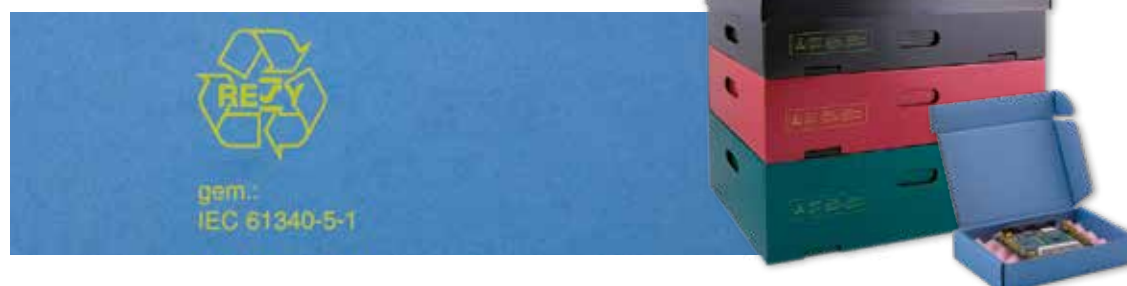
CP - COATED PRODUCTS protect your electronic components. The ESD containers offer special protective layers that balance electrostatic voltages and shield fields.

Thus **CORSTAT™** and **CORTRONIC®** offer the full range to protect your electronics from ESD hazards, from $< 10^2$ to 10^{11} Ohm. For your safety during packaging, transport, storage and shipping.



CORSTAT™ CORTRONIC®

Technical Facts	CORSTAT™	CORTRONIC®
Electrical		
Surface resistance Core layer (1- or 2-layer) 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 ANSI / ESD STM 11-31 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 (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

CORTRONIC® 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
CORSTAT™/CORTRONIC®/DISSIPATIV**

Logistical requirements

Location and transport
Requirement due to
IEC 61340-5-3

Type of coating

Procurement

Product / Component



Transport Packaging

Storage Packaging

Transport Packaging



Inside an EPA & ESD-Area

(EPA = Electrostatic Protected Area,
ESD = Electrostatic Discharge)

» **conductive**

$$1 \times 10^2 \text{ Ohm} \leq R_s < 1 \times 10^4 \text{ Ohm}$$

or

» **dissipative**

$$1 \times 10^4 \text{ Ohm} \leq R_s < 1 \times 10^{11} \text{ Ohm}$$

Outside an EPA / unmonitored areas

(regular properties)

» **conductive**

$$1 \times 10^2 \text{ Ohm} \leq R_s < 1 \times 10^4 \text{ Ohm}$$

or

» **dissipative**

$$1 \times 10^4 \text{ Ohm} \leq R_s < 1 \times 10^{11} \text{ Ohm}$$

and

» **protection against discharge**

$$< 50 \text{ nJ}$$



CORTRONIC® ($10^7 - 10^8$ Ohm incl. shielding)

CORSTAT™ ($10^5 - 10^6$ Ohm incl. shielding)

DISSIPATIVE ($10^7 - 10^{11}$ Ohm)

CORTRONIC® ($10^7 - 10^8$ Ohm incl. shielding)

CORSTAT™ ($10^5 - 10^6$ 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.

Containers For Shipment

Standard color: Blue



PCB Transit Boxes with printed warning

CORTRONIC® Assembled boxes lined with conductive profiled soft foam and conductive pin-insertion foam

Ref	Item-No.	Inner dimensions, mm		
01-TVS	10003499-0001	40	40	15
02-TVS	10003515-0001	60	60	24

CORTRONIC® Flat packed boxes, empty

Ref	Item-No.	Inner dimensions, mm		
05-TVS	10002882-0001	100	55	25
10-TVS	10002951-0001	183	127	38
15-TVS	10002952-0001	178	127	64
20-TVS	10002947-0001	190	135	40
30-TVS	10002953-0001	250	191	38
40-TVS	10002948-0001	250	191	64
45-TVS	10002954-0001	250	191	110
50-TVS	10002949-0001	267	216	64
55-TVS	10004138-0001	300	300	100
56-TVS	10004139-0001	340	300	100
57-TVS	10002955-0001	380	280	60
58-TVS	10002957-0001	380	250	120
60-TVS	10002950-0001	420	220	40
65-TVS	10002956-0001	420	220	65
70-TVS	10002946-0001	480	360	64

Inserts for PCB Transit Boxes

Profiled Foam Pink

Height 20 mm, dissipative pink, dissipative function lasts up to 6 months



Ref	Item-No.
05-NS-AS	12000062
10-15-NS-AS	12000064
20-NS-AS	12000066
30-45-NS-AS	12000068
50-NS-AS	12000070
55-NS-AS	12000072
56-NS-AS	12000074
57-NS-AS	12000076
58-NS-AS	12000078
60-65-NS-AS	12000080
70-NS-AS	12000082

Profiled Foam Black

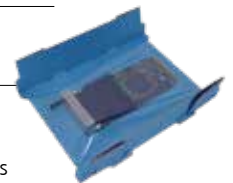
Height 20 mm, elektrisch leitfähig, conductive function: max. 5 years



Ref	Item-No.
05-NS-EL	12000063
10-15-NS-EL	12000065
20-NS-EL	12000067
30-45-NS-EL	12000069
50-NS-EL	12000071
55-NS-EL	12000073
56-NS-EL	12000075
57-NS-EL	12000077
58-NS-EL	12000079
60-65-NS-EL	12000081
70-NS-EL	12000083

Flatpac

dissipative, incl. fixation film, dissipative function of foil: max. 6 months



Ref	Item-No.
10-DFP	12000120
15-DFP	12000119
20-DFP	12000121
30-DFP	12000122
40-DFP	12000123
45-DFP	12000124
50-DFP	12000125
55-DFP	12000126
57-DFP	12000129

Flatpac Quick

mit printed warning
CORTRONIC[®] Transit box
incl. fixation film*



Ref	Item-No.	Inner dimensions, mm		
20-KC	12000130	125	107	25
30-KC	12000131	160	127	34
40-KC	12000132	235	175	45
50-KC	12000133	282	228	70

* Dissipative function of the film: max. 6 months

Foampac E-Prom

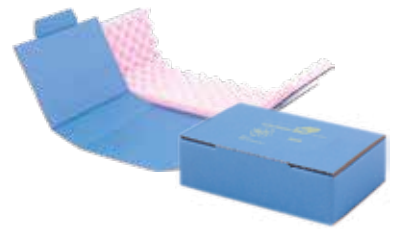
with printed warning
CORTRONIC[®] Transit box
with conductive foam*:
PE - PE-foam (6 mm)
PE-N - PE-foam (6 mm) + profiled foam (10 mm)
N - Profiled foam (10 mm) fully covered
also without foam available (OS)

Ref	Item-No.	Inner dimensions, mm		
05-TEP-OS	10002922-0001	95	30	15
05-TEP-PE	10003249-0001			
05-TEP-PE+N	10003250-0001			
05-TEP-N	10003252-0001			
10-TEP-OS	10002842-0001	100	60	15
10-TEP-PE	10003257-0001			
10-TEP-PE+N	10003260-0001			
10-TEP-N	10003264-0001			
15-TEP-OS	10002894-0001	100	60	30
15-TEP-PE	10003265-0001			
15-TEP-PE+N	10003268-0001			
15-TEP-N	10003277-0001			
20-TEP-OS	10002996-0001	120	100	15
20-TEP-PE	10003281-0001			
20-TEP-PE+N	10003282-0001			
20-TEP-N	10003283-0001			
30-TEP-OS	10002997-0001	155	70	25
30-TEP-PE	10003284-0001			
30-TEP-PE+N	10003285-0001			
30-TEP-N	10003286-0001			

* conductive funtion: max. 5 years

Foampac

with printed warning
CORTRONIC[®] Transit box with dissipative profiled foam*
(AS / 20 mm) or conductive profiled foam* (EL / 20 mm),
also available without foam (OS)



Ref	Item-No.	Inner dimensions, mm		
05-TCP-OS	10002993-0001	150	115	40
05-TCP-AS	10003144-0001			
05-TCP-EL	10003157-0001			
10-TCP-OS	10002994-0001	200	140	50
10-TCP-AS	10003190-0001			
10-TCP-EL	10003194-0001			
20-TCP-OS	10002995-0001	280	140	100
20-TCP-AS	10003196-0001			
20-TCP-EL	10003211-0001			

* Dissipative function of pink profiled foam: max. 6 months



CORSTAT™ CORTRONIC®

Container For Production And Storage

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

Standard color: Black

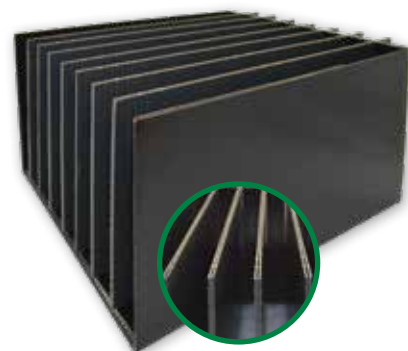


Reel Box CORSTAT™ and CORTEC

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

Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm			Reels Ø mm
10-CRB	10004713	380	176	100	398	193	104	180, max. 16 Reel
30-CRB	10005113	355	286	220	373	204	224	380, max. 5 Reel

Ref	Item-No.	Inner dimensions, mm			Reels Ø mm
10-CRM	10005114	330	319	220	380, max. 8 Reel



IC Bar Magazine CORSTAT™

for IC bars, stackable, 5 slots

Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
10-ICM-B+E	10004336-0001	336	586	35	399	599	39



Tube Box CORSTAT™ and CORTEC

for IC bars, with printed warning

Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
05-CTB-B+D	10004337-0001	600	95	45	610	113	51
10-CTB-B+D	10004335-0001	590	95	95	600	113	101



Storage Box, open CORSTAT™ and CORTEC



Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
05-CLBO	10002646-0001	180	62	65	202	70	70
10-CLBO	10002644-0001	285	150	110	305	159	115
15-CLBO	10002879-0001	292	109	122	313	116	127
20-CLBO	10002657-0001	580	65	65	600	73	66
30-CLBO	10002648-0001	592	109	122	611	117	127
40-CLBO	10002649-0001	592	153	70	611	161	75
45-CLBO	10002659-0001	590	200	180	609	209	185
50-CLBO	10002645-0001	615	100	130	634	108	135

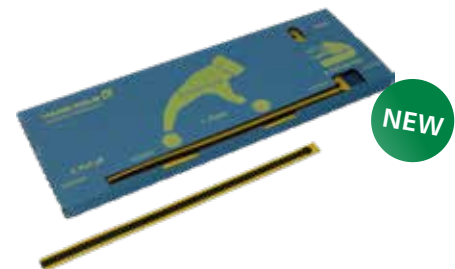
Accessories For Production, Storage And Shipment

Dividing Sheets

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



Ref	Item-No.	Dimensions, mm	
05-DZW	10002650-0001	357	246
10-DZW	10002656-0001	550	350



Heel Strap Dispenser

dissipativ, blau, inkl. 100 Fersenbänder

Typ	Artikel-Nr.	Innenmaße mm		
100-TFS	12000118	304	144	17

Adhesive Tape Black

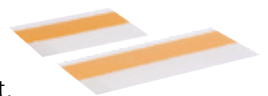
needed for 30, 40, 45, 50-TSC and TAB



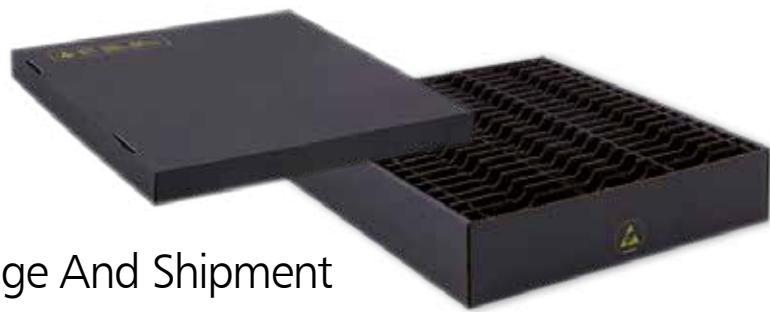
Ref	Item-No.	Length, m	Width, mm
10-KB	12000139	66	50

Label Holder

dissipative, adhesive, transparent,
further sizes upon request



Ref	Item-No.	Dimensions, mm	
05-LT	12000134	140	100
10-LT	12000135	215	105



Container For Production, Storage And Shipment

In-plant handler CORTRONIC®

with printed warning, black

The removal of longitudinal bars offers the possibility to vary the compartment size:

Bars dissipative, for 30, 40, 45 and 50-TSC adhesive tape is needed (sold separately)

Ref	Item-No.	Inner dimensions*			No. of comp.	Comp size*			No. of short bars	No. of long bars	Outer dimensions incl. lid*		
		L	B	H		L	B	H			L	B	H
10-TSC	10003026-0001	270	169	195	12	130	24	195	1	5	297	181	204
10-TSCD	10003017-0001	287	177	50	6	265	24	195		5			
10-DSC-K	10002788-0001	392	169	(short bar)									
10-DSC-L	10002794-0001	392	276	(long bar)									
15-TSC	10004136-0001	372	388	84	60	109	18	84	19	4	400	400	100
15-TSCD	10004137-0001	390	396	35	40	165	18	84	19	3			
15-DSC-K	10002795-0001	84	372	(short bar)									
15-DSC-L	10002797-0001	84	388	(long bar)									
20-TSC	10004140-0001	386	386	176	30	110	30	175	4	9	415	405	190
20-30-TSCD	10003016-0001	401	401	60	20	168	30	175	3	9			
					10	340	30	175	2	9			
20-DSC-K	10002786-0001	358	383	(short bar)									
20-DSC-L	10002800-0001	266	385	(long bar)									
30-TSC	10002928-0001	386	386	358	18	168	35	350	8	3	415	405	365
20-30-TSCD	10003016-0001	401	401	60	9	340	35	350	8	2			
30-DSC-K	10002784-0001	624	385	(short bar)									
30-DSC-L	10002801-0001	718	383	(long bar)									
40-TSC	10003019-0001	424	272	281	22	178	18	280	3	10	450	290	290
40-TSCD	10003025-0001	438	286	60	11	365	18	280	2	10			
40-DSC-K	10002802-0001	280	269	(short bar)									
40-DSC-L	10002792-0001	523	421	(long bar)									
45-TSC	10003024-0001	493	390	166	20	178	45	166	9	3	510	410	175
45-TSCD	10003015-0001	505	406	50	10	360	45	166	9	2			
45-DSC-K	10002780-0001	333	390	(short bar)									
45-DSC-L	10002785-0001	333	493	(long bar)									
48-TSC	10003027-0001	562	355	150	44	123	24	150	5	10	595	380	160
48-50-TSCD	10003018-0001	580	375	60	33	165	24	150	4	10			
					22	250	24	150	3	10			
					11	515	24	150	2	10			
48-DSC-K	10002778-0001	150	352	(short bar)									
48-DSC-L	10002799-0001	150	560	(long bar)									
50-TSC	10002934-0001	562	355	329	44	123	24	325	5	10	595	380	335
48-50-TSCD	10003018-0001	580	375	60	33	165	24	325	4	10			
					22	250	24	325	3	10			
					11	515	24	325	2	10			
50-DSC-K	10002793-0001	660	352	(short bar)									
50-DSC-L	10002787-0001	508	560	(long bar)									

* Dimensions and sizes in mm

Tray CORSTAT™

Tray stackable, either with oder without foam

OS = **without foam** oder AS = **dissipative** oder EL = **conductive**

Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
05-CTR-OS	10003753-0001	297	230	28	351	246	31
05-CTR-AS	10003251-0001						
05-CTR-EL	10003253-0001						
06-CTR-OS	10002580-0001	297	230	55	351	246	60
06-CTR-AS	10003254-0001						
06-CTR-EL	10003258-0001						
07-CTR-OS	10002579-0001	305	243	40	358	259	43
07-CTR-AS	10003261-0001						
07-CTR-EL	10003263-0001						
20-CTR-OS	10002779-0001	499	330	28	550	346	31
20-CTR-AS	10003266-0001						
20-CTR-EL	10003267-0001						
25-CTR-OS	10002155-0001	499	330	40	550	346	43
25-CTR-AS	10002184-0001						
25-CTR-EL	10002185-0001						
30-CTR-OS	10002774-0001	499	330	70	550	346	73
30-CTR-AS	10003269-0001						
30-CTR-EL	10003270-0001						



EE-Tray with CORTEC assembled plastic reinforcement for stacking lugs							
Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
20-CTR-EE-OS	10003271-0001	496	327	28	550	354	35
20-CTR-EE-AS	10003272-0001						
20-CTR-EE-EL	10003273-0001						
25-CTR-EE-OS	10003516-0001	496	327	40	550	354	45
25-CTR-EE-AS	10003518-0001						
25-CTR-EE-EL	10003523-0001						
30-CTR-EE-OS	10003274-0001	496	327	70	550	354	75
30-CTR-EE-AS	10003276-0001						
30-CTR-EE-EL	10003280-0001						

CTR Partition Inserts (solid board) CORSTAT™

Ref	Item-No.	Dimensions mm		No. of slots	Grid mm	No. of bars max.	Cell dimension min. mm	No. of cells max.
20-CTR-K	12000055	328	28	14	20	21	20 x 20 x 28	330
20-CTR-L	12000056	497	28	21	20	14		

CORSTAT™ CORTRONIC®

Container For Production, Storage And Shipment

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

Standard color: Black

Multibox CORTRONIC® and CORTEC



Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
10-MB	10003014-0001	565	365	109	591	391	114
20-MB	10002932-0001	565	365	209	591	391	214

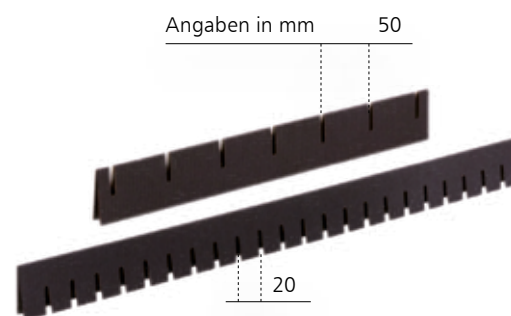
Multibox Lid CORTRONIC® and CORTEC



Ref	Item-No.	Inner dimensions, mm			Outer dimensions, mm		
10-20-MBD	10002868-0001	593	393	50	603	397	53

Multibox Partition Inserts

for 10-20-MB, dissipative



Ref	Item-No.	Dimensions mm		No. of slots	Grid mm	No. of bars max.	Cell dimensions min. mm	No. of cells max.
10-MB-K	10002783-0001	352	100	7	50	22	50 x 20 x 100	138
10-MB-L	10002782-0001	552	100	22	20	7		
20-MB-K	10002798-0001	352	200	7	50	22	50 x 20 x 200	138
20-MB-L	10002781-0001	552	200	22	20	7		

For individual compartment layout, dividers are sold separately.

Customer-Store-Container in a colorful variety
CORTRONIC® and **CORTEC** , can be used with and without lid

Ref	Item-No.	Inner dimensions, mm without stacking lug			Inner dimensions, mm without stacking lug (without lid)		
03-CSC-BLACK	10003464-0001	362	251	60	389	278	67
03-CSC-RED	10003472-0001						
03-CSC-GREEN	10003470-0001						
03-CSC-BLUE	10003465-0001						
05-CSC-BLACK	10003341-0001	362	251	100	389	278	107
05-CSC-RED	10003347-0001						
05-CSC-GREEN	10003346-0001						
05-CSC-BLUE	10003342-0001						
10-CSC-BLACK	10003350-0001	362	251	139	389	278	146
10-CSC-RED	10003356-0001						
10-CSC-GREEN	10003354-0001						
10-CSC-BLUE	10003351-0001						
15-CSC-BLACK	10003423-0001	362	251	220	389	278	227
15-CSC-RED	10003437-0001						
15-CSC-GREEN	10003436-0001						
15-CSC-BLUE	10003434-0001						
16-CSC-BLACK*	10005121	362	251	300	389	278	307
17-CSC-BLACK	10003359-0001	551	362	60	578	389	67
17-CSC-RED	10003362-0001						
17-CSC-GREEN	10003361-0001						
17-CSC-BLUE	10003360-0001						
19-CSC-BLACK	10003432-0001	551	362	100	578	389	107
19-CSC-RED	10003453-0001						
19-CSC-GREEN	10003438-0001						
19-CSC-BLUE	10003435-0001						
20-CSC-BLACK	10003527-0001	551	362	139	578	389	146
20-CSC-RED	10003729-0001						
20-CSC-GREEN	10003532-0001						
20-CSC-BLUE	10003529-0001						
30-CSC-BLACK	10003530-0001	551	362	172	578	389	179
30-CSC-RED	10003533-0001						
30-CSC-GREEN	10003904-0001						
30-CSC-BLUE	10003531-0001						
35-CSC-BLACK	10003455-0001	551	362	220	578	389	227
35-CSC-RED	10003460-0001						
35-CSC-GREEN	10003459-0001						
35-CSC-BLUE	10003458-0001						
36-CSC-BLACK*	10005120	550	365	300	578	389	307
40-CSC-BLACK*	10005187	550	365	400	578	389	410

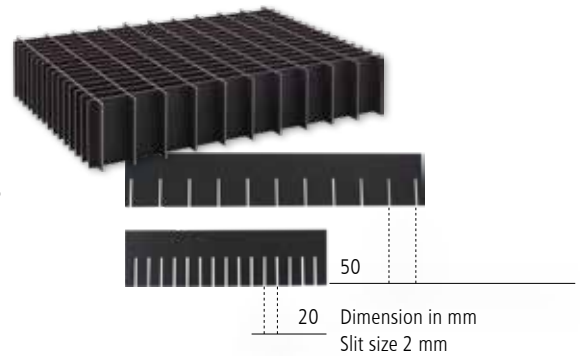


* 16-CSC, 36-CSC and 40-CSC available in black only, no partition inserts available

CORSTAT™ CORTRONIC®

Partition Inserts for CSC-Container

Standard color: Black



CSC Partition Inserts (solid board) CORSTAT™

Ref	Item-No.	Dimensions mm	No. of slots	Grid mm	No. of bars max.	Cell dimen- sions min. mm	No. of cells max.
03-CSC-K	12000030	249 60	10	20	6	50 x 20 x 60	77
03-CSC-L	12000034	360 60	6	50	10	50 x 20 x 60	77
05-CSC-K	12000031	249 100	10	20	6	50 x 20 x 100	77
05-CSC-L	12000035	360 100	6	50	10	50 x 20 x 100	77
10-CSC-K	12000032	249 139	10	20	6	50 x 20 x 139	77
10-CSC-L	12000033	360 139	6	50	10	50 x 20 x 139	77
15-CSC-K	12000036	249 220	10	20	6	50 x 20 x 220	77
15-CSC-L	12000037	360 220	6	50	10	50 x 20 x 220	77
17-CSC-K	12000039	360 60	15	20	11/24	50 x 20 x 60	160
17-CSC-L50	12000040	549 60	11	50	15	50 x 20 x 60	160
17-CSC-L20	12000042	549 60	24	20	15	20 x 20 x 60	400
19-CSC-K	12000038	360 100	15	20	11/24	50 x 20 x 100	160
19-CSC-L50	12000041	549 100	11	50	15	50 x 20 x 100	160
19-CSC-L20	12000043	549 100	24	20	15	20 x 20 x 100	400
20-CSC-K	12000044	360 139	15	20	11/24	50 x 20 x 139	160
20-CSC-L50	12000045	549 139	11	50	15	50 x 20 x 139	160
20-CSC-L20	12000046	549 139	24	20	15	20 x 20 x 139	400
30-CSC-K	12000047	360 172	15	20	11/24	50 x 20 x 172	160
30-CSC-L50	12000048	549 172	11	50	15	50 x 20 x 172	160
30-CSC-L20	12000049	549 172	24	20	15	20 x 20 x 172	400
35-CSC-K	12000050	360 220	15	20	11/24	50 x 20 x 220	160
35-CSC-L50	12000052	549 220	11	50	15	50 x 20 x 220	160
35-CSC-L20	12000051	549 220	24	20	15	20 x 20 x 220	400

Bars are available individually, thus individual compartment sizes are possible.
Already assembled sets available on request.

Customer-Store-Lid CORTRONIC® - available in black

Ref	Item-No.	Inner Dimensions, mm			Inner Dimensions, mm		
03-16-CSCD	10002655-0001	388	281	30	399	299	35
17-40-CSCD	10002653-0001	581	392	40	599	399	45



RSC / American Boxes CORTRONIC®

Adhesive Film 10-KB is needed and sold separately (Page 17)

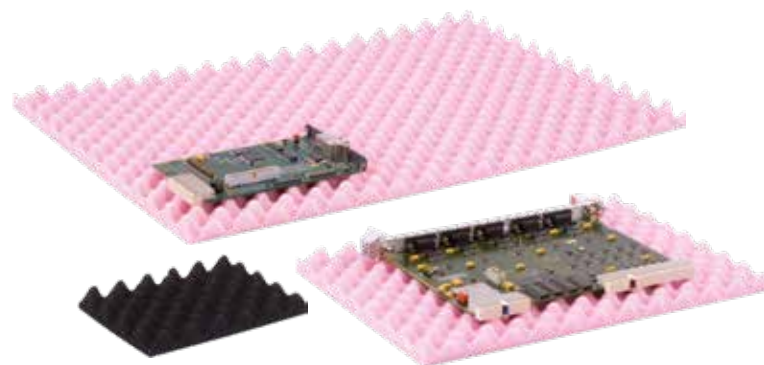
Ref	Item-No.	Inner Dimensions, mm			Inner Dimensions, mm		
13-TAB	10002927-0001	362	251	172	373	259	188
15-TAB	10002843-0001	362	251	220	373	259	236
30-TAB	10003146-0001	551	362	172	562	370	188
35-TAB	10003145-0001	551	362	220	562	370	236



Profiled Foam for CSC and TAB

dissipative pink* or conductive**

Ref	Item-No.	Dimensions, mm		
03 to 16-CSC NS AS	12000113	361	250	20
03 to 16-CSC NS EL	12000115	361	250	20
17 to 40-CSC NS AS	12000114	550	361	20
17 to 40-CSC NS EL	12000116	550	361	20



* Dissipative function of pink profiled foam: max. 6 Months

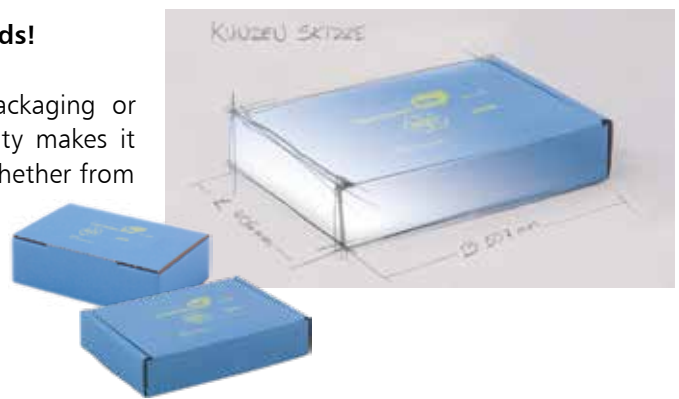
** Conductive function of black profiled foam: max. 5 Years

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. **CORTRONIC®**'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 film
- » Constructive dispatch boxes
- » **CORPACK** with profiled foam

For production, in-plant handling and storage:

- » Stackable boxes
- » Trays
- » Reels, reel holders
- » Storage boxes
- » Partitioned boxes
- » Multibox
- » Fifo-Box

Worldwide availability!

CORSTAT™ and **CORTRONIC®** are used over decades in all parts of the world. Just call us or visit us on the web to find your next dealer.



CORRUST®



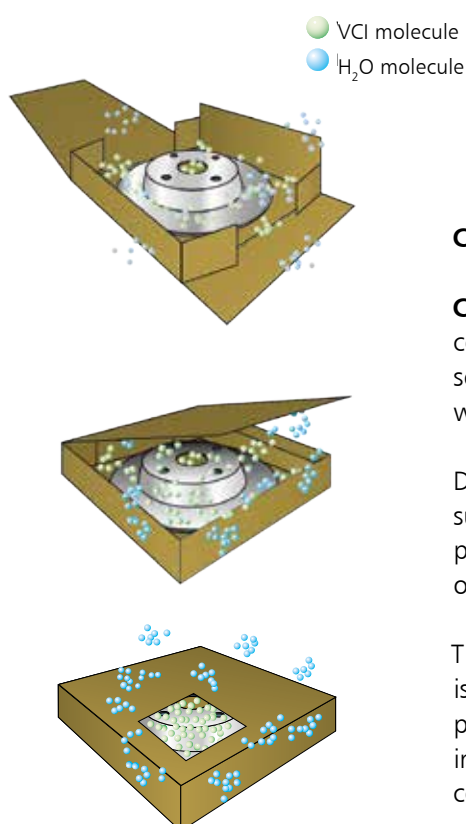
Corrosion Protection With Vision

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 particularly 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 you a real competitive advantage.

CORRUST® packaging systems ensure smooth logistics processes with a significantly improved way to maintain the quality of your corrosive products

Michael Hartmann
KOLB CoatedProducts®



Protecting the environment

Corrosion damage not only affects trade, but also has an impact on the environment. **CORRUST®** 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 shipment 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, **CORRUST®** 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 inside!



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 **CORRUST®** 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

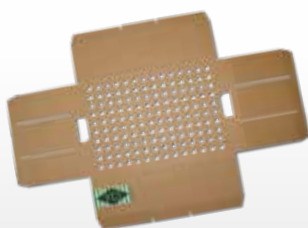
MM

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



Die-Cuttings



Partitions / Inserts



RSC / American Boxes

SKINBOARD®
CORRUST SKINBOARD®



Skin Thigh Protection

SKINBOARD® CORRUST SKINBOARD®

Product Safety And Outstanding Presentation.

With **SKINBOARD®** 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 **SKINBOARD®** packaging very easy to handle.

Thanks to the use of high-strength adhesive, even heavy parts can be safely 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.*

*SKINBOARD® 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.

*SKINBOARD® 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 CORRUST® SKINBOARD packaging from KOLB.

CORRUST SKINBOARD®

CORRUST SKINBOARD® 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:

- » Steel/iron, chromium
- » Brass, copper, bronze
- » Magnesium and magnesium alloys, silver
- » Multi-metal protection for products made from various metals



SKINBOARD® CORRUST SKINBOARD®

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

SKINBOARD® and **CORRUST SKINBOARD®** are suitable for combination with all current skin foils. For **CORRUST SKINBOARD®** 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 **SKINBOARD®** is processed on our skin packaging machine?

Thanks to a skin tight film 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.



SKINBOARD® CORRUST SKINBOARD®

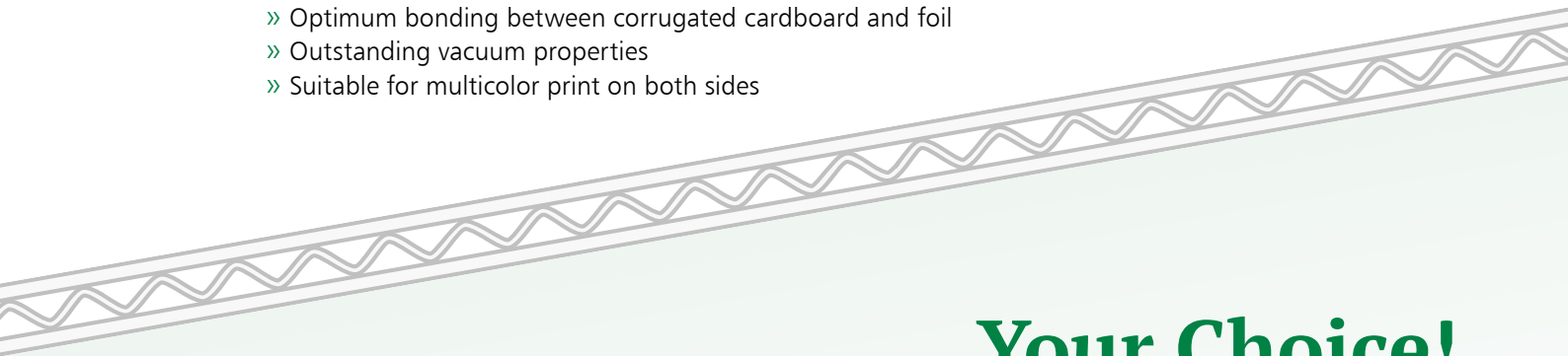
Skin packaging – on corrugated cardboard carrier material

» 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 **CORRUST SKINBOARD®**)
- » 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



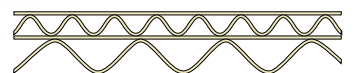
EE-Flute



EB-Flute



BC-Flute



The skin layer: The finish:

SKINBOARD® or **CORRUST SKINBOARD®**
Color / print pattern



Types, Sizes, Dimensions



CORRUST®

CORRUST® 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!

CORRUST SKINBOARD®

CORRUST SKINBOARD® features fully integrated corrosion protection and therefore offers maximum protection for vacuum-packed products.

CORRUST® 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 **CORRUST®** 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 **CORRUST®** developments. Depending on the product to be packaged, the basic features of the different **CORRUST®** 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.

Storage in cool and dry conditions mandatory. Please observe handling instructions.





Grease, moisture, mould: We have something against it!

Simply hygienic - With coatings against moisture, not only is your product protected, but in the case of the Air-Pet-Box, even the environment is protected from „animal mishaps“.



CORFENCE against MOSH/MOAH

CORFENCE offers reliable protection against MOSH / MOAH mineral oil migration. The special barrier coating goes hand in hand with customised packaging construction.

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.

CORTEC Moisture-resistant coating

Moisture is the natural enemy of corrugated board packaging. But not where the moisture-resistant special coating on **KOLB CoatedProducts®** 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.

Clever Coatings Due To Your Demand

FlameRetard

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



Stop & Go: non-slip and sliding coatings

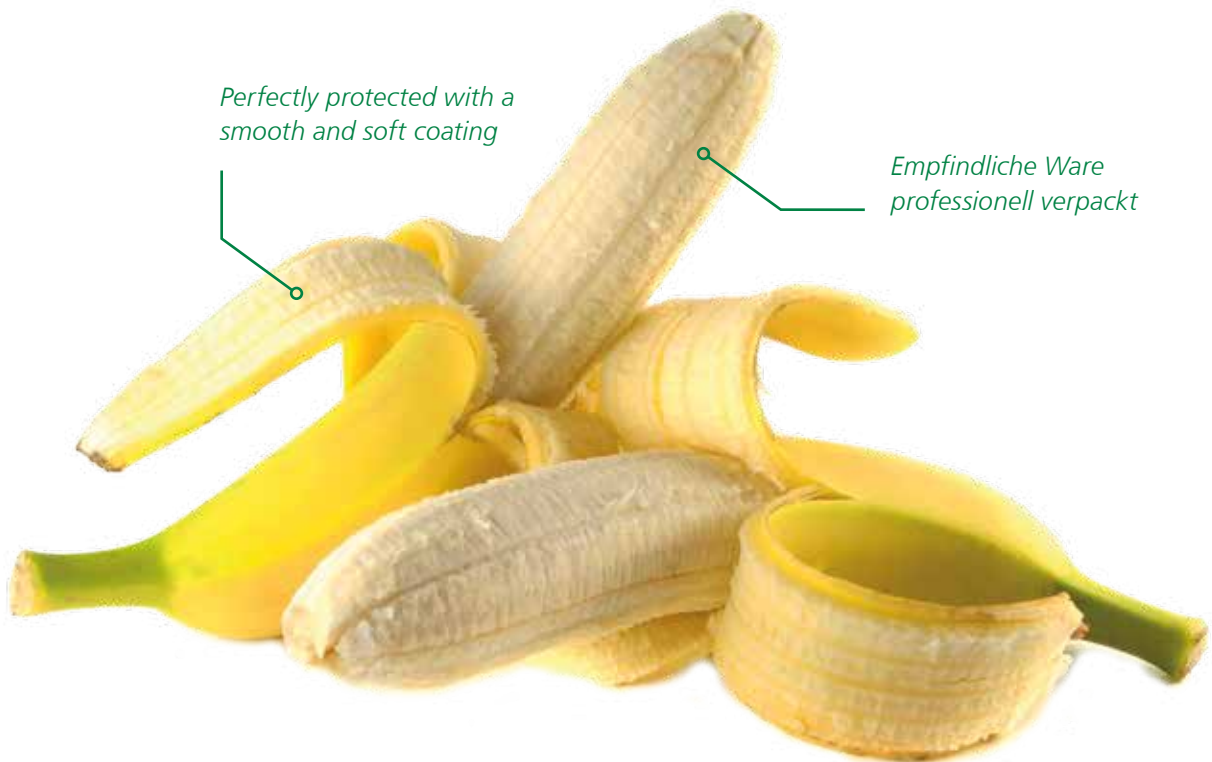
Packages or intermediate layers that have adhesive or gliding properties are used either to fix goods during transport or for the horizontal automatic loading of boxes and trays. Two different coatings provide different results, but they have one thing in common: process optimization and the simplification 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.





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 50 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.

Si necesita más información, puede contactarnos a través de las siguientes vías:

- Teléfono: 956 20 11 12.
- Email: sac@tch.es / info@tch.es
- Página web: www.tch.es
- Tienda online: www.tchshop.es

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Zona Franca, Edificio Altas, 11011 Cádiz, Cádiz.