reacto®
CARBONLESS PAPER

PRODUCT INFORMATION

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REACTO® – YOUR RELIABLE PARTNER FOR THE FUTURE

The factory in Oberkirch

reacto® is the world-famous brand name of our carbonless paper 'Made in Germany'.

Today, we are Europe's leading manufacturer of carbonless paper, with our own patents, microcapsule production and nearly 50 years of experience.

Carbonless paper offers clear advantages in many areas:

- cheaper than laser printing
- protection against forgery
- user friendly
- saves costs and time

Carbonless paper is also unbeatable wherever the duplicate has to have the same quality as the original, in such fields as contracts or logistics.

We guarantee a long-term supply of reacto® carbonless paper thanks to our state-of-the-art, efficient production lines and thus offer our business associates clear and reliable future prospects.

“MADE IN GERMANY” QUALITY

Our reacto® carbonless papers are characterized by extremely consistent quality, reliability, excellent printability and outstanding running properties.

Our highly-qualified employees in quality assurance and research and development guarantee that reacto® is always on the cutting edge of technological development and that we can react quickly and flexibly to market and customer requirements. With this in mind, we have developed a carbonless paper for dry toner-based digital printing systems, in order to follow the trend for smaller and flexible print runs – whether for pure laser print or preprint applications.

And should you require paper at short notice, we always have the latest specifications available in our ultra-modern and fully automated high-bay warehouse.

You can always rely on reacto® – today and tomorrow!

HOW REACTO® WORKS

reacto® is a high-quality paper for making forms of all kinds that produces a copy using two different coatings.

Copies are made by applying pressure, which causes the microcapsules on the underside of the sheet to burst and release a colorformer. This triggers a color reaction on the underlying sheet, which is also coated. This type of paper is therefore called color reaction or carbonless paper.

reacto® is available with black copy as standard.

Due to the different coatings, distinctions are made between the types of sheet described hereafter.

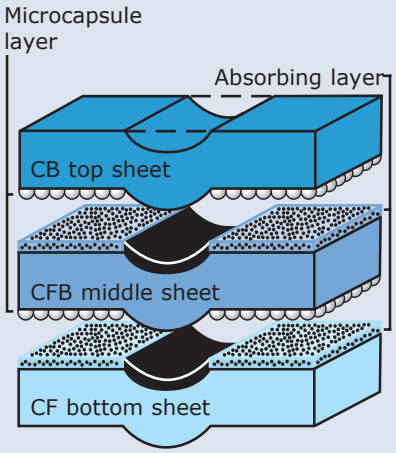
MULTI-SHEET SYSTEM

Each classic reacto® form set consists of the following:

- Top sheet – **CB** (coated back)
  with ink-releasing microcapsule layer on its underside.
- Middle sheet – **CFB** (coated front and back)
  with ink-absorbing layer on the front and ink-releasing microcapsule layer on the back.
- Bottom sheet – **CF** (coated front)
  with ink-absorbing layer on the front.

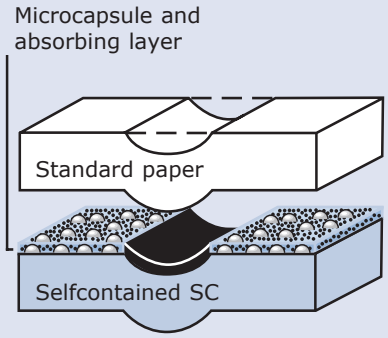
It is possible to use more than one middle sheet. Combining reacto® with products from other manufacturers is not recommended, since the quality of the copies can be impaired.

MULTI-SHEET SYSTEM



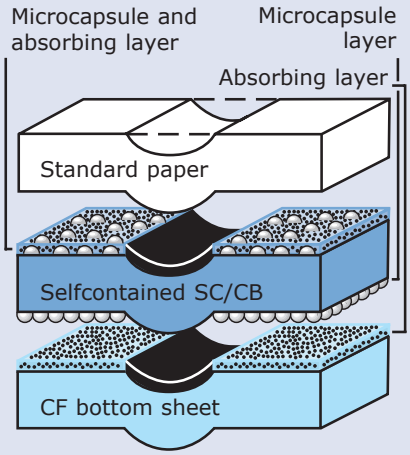
The microcapsules burst under the pressure of writing so that they release the reaction fluid onto the next sheet. An ink reaction creates the copy on the next sheet's ink-absorbing layer.

SELFCONTAINED SC

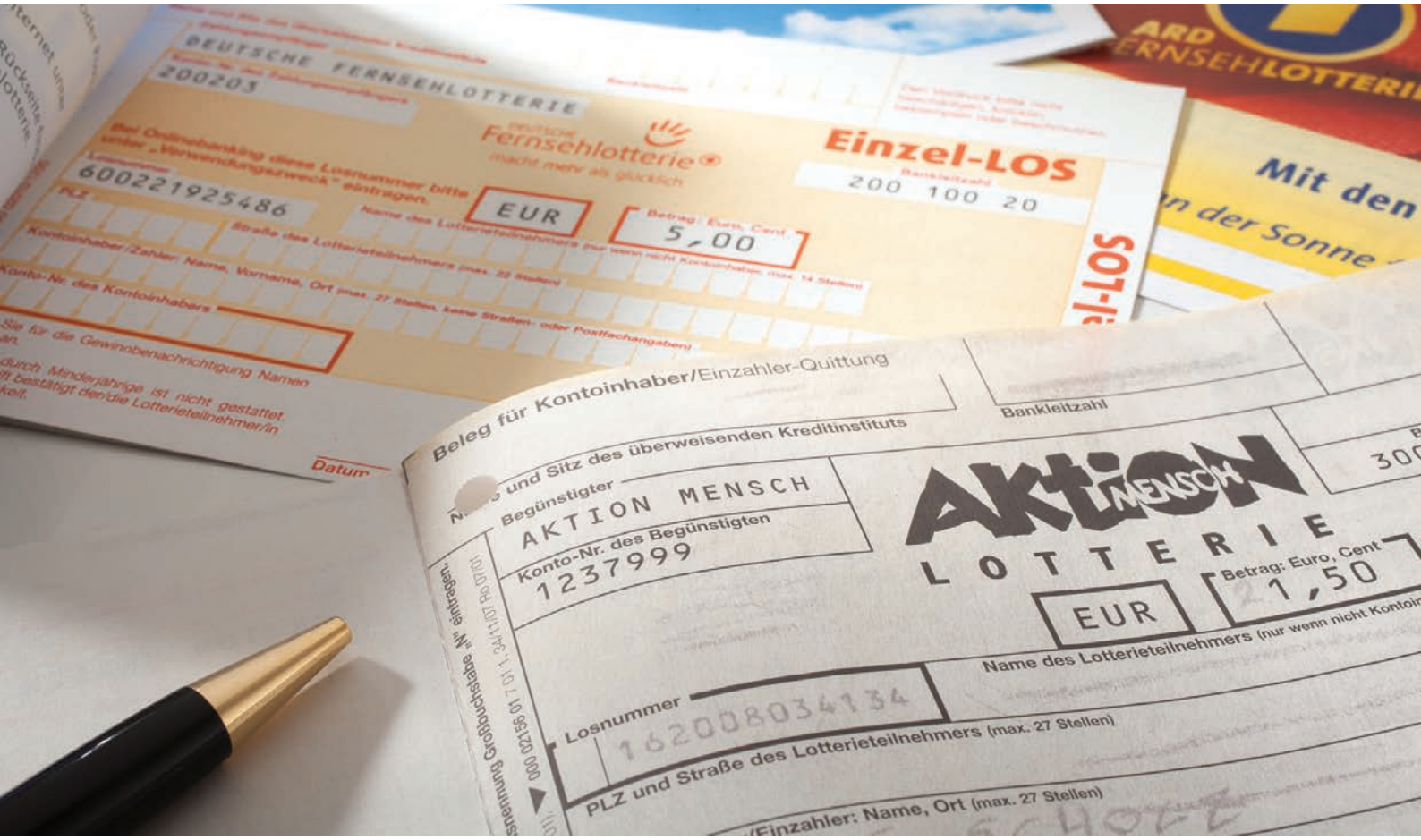


The microcapsules contained in the SC layer burst under the pressure of writing, so that they release reaction fluid onto the surrounding pigments. The color reaction takes place within the same layer.

SELFCONTAINED SC/CB



On the front, this functions in the same way as Selfcontained SC. The extra layer of capsules on the back releases reaction fluid onto the next middle sheet or bottom sheet.



REACTO® SELFCONTAINED SC

For special applications, we also supply paper coated on the front with both ink-releasing and ink-absorbing agents in a single layer. The reaction takes place within this layer when pressure is applied by a writing implement. Papers of this type are known as "self-contained" or "SC papers" for short.

Selfcontained SC is suitable for use together with an uncoated standard paper as top sheet, e.g. with letter paper, watermark paper or self-adhesive label for use as a package label.

REACTO® SELFCONTAINED SC/CB

Selfcontained SC/CB also has another ink-releasing layer (microcapsules) on the back, which enables a copy to be made on the next middle sheet or bottom sheet.

USING FORMS

COPY
reacto® is suitable for hand writing implements, typewriters or dot-matrix printers.

The maximum number of copies possible depends on the grammage of the paper and the applied pressure or impact force.

When using standard paper types such as CB 56 / CFB 53 / CF 57 up to six copies can be produced.

The number of possible copies depends on many factors. We therefore recommend that the papers are tested on the device to be used beforehand.

HANDWRITING
All standard writing implements can be used on the front side of reacto® sheets. In order to achieve the writing pressure required to create copies, a hard, flat surface and a fine-tip ballpoint pen should be used. For writing on the reverse side (microcapsule side), high-quality ballpoint pen cartridges are required to obtain a clear and sharp image.

COPY LIFE
The amount of time that copies can be kept without degrading is important in view of the different periods of time required by law for storage of business records. reacto® is officially tested and approved. Tests have shown that archiving times of over 25 years are achieved using typical filing or folder systems.

The copying properties remain virtually unchanged for up to three years. For optimum results, however, the forms should be used within five years.

STORAGE OF FORMS

Forms should not be exposed to chemicals, vapors, fumes or bright light. Plasticizers contained in plastic films and sheets can impair copies. We therefore recommend to use polyethylene products or folders of paper and board.

PHOTOCOPYING, MICROFILMING, SCANNING

reacto® copies can be copied, microfilmed or scanned using all modern types of equipment.

STORAGE

reacto® is supplied with a relative paper moisture of 38–50% at 21°C. Experience has shown that these are the most favorable conditions for achieving good printing results. reacto® should be stored and processed in rooms with constant ambient conditions. Before unwrapping the paper and commencing printing, reacto® must be acclimatized to the conditions in the printing area.

PRACTICAL NOTES

PRINTING METHODS

reacto® can be printed using any of the usual methods for printing forms, e.g. letterpress, dry and wet offset, and flexographic printing.

LASER PRINTERS

For use in laser printers, we recommend the new reacto® LASER quality, which can generally be used for all dry toner-based digital printing systems. reacto® LASER is suitable for pure laser printing as well as for preprint.

INK JET PRINTERS

As a general rule, reacto® can be processed in ink jet printers. A point to notice here is that the differing natures of coated and uncoated surfaces mean that they have differing printing qualities. If the quality of the printed copy must meet demanding requirements, we recommend that tests are conducted beforehand.

PRINTING INKS

High-quality, low-tack printing inks should be used, preferably unthinned. The printing ink must not react with the coating; if in doubt, please consult your ink supplier.

PRINTING PRESS ADJUSTMENT

The capsule-coated CB, CFB and SC sheets are pressure-sensitive. Excessive pressure on the paper must be avoided to prevent destruction of the microcapsules and discoloration.

HALFTONE PRINTING, SOLID PRINTING

We recommend that solid printing on middle and bottom sheets is restricted to areas in which no legible copy image is required. Halftone printing techniques impair the quality of copies if the dot density exceeds 25%.

REVERSE SIDE PRINTING

Printing is often required on the reverse side of the top and middle sheets. Offset printing is highly recommended for this because the pressure-sensitive capsule-coated side only tolerates minimum application of pressure.

When printing on the reverse side, use thinly applied light-colored inks (no glossy inks). Light-face types prevent show-through and do not impair the copying performance.

When printing scrambled pattern on the back of the paper, e. g. for pay envelopes, it is important to use printing inks which do not impair the copying.

DESENSITISATION

The desensitisation of defined areas on forms is possible. Applying the reacto® Desensitising Ink to the CF layer prevents a copy being created at this point. For this purpose, please use only reacto® Desensitising Ink and please read the handling instructions on our homepage carefully before use.

TINTING
reacto® can be surface tinted with both alcohol and aqueous based inks. As tinting affects copy quality, ink coverage should be light. However, no guarantee of copy intensity or fanapart performance can be given on self-tinted paper, so please make sure that the tinting process has no negative effects.

PERFORATION
reacto® Carbonless Paper is suited for longitudinal as well as for transverse perforation. Remaliner perforation is also possible. The low abrasiveness of our CF coating ensures long service life of the tools.

CUTTING
When using guillotine-type cutters, the following must be observed:

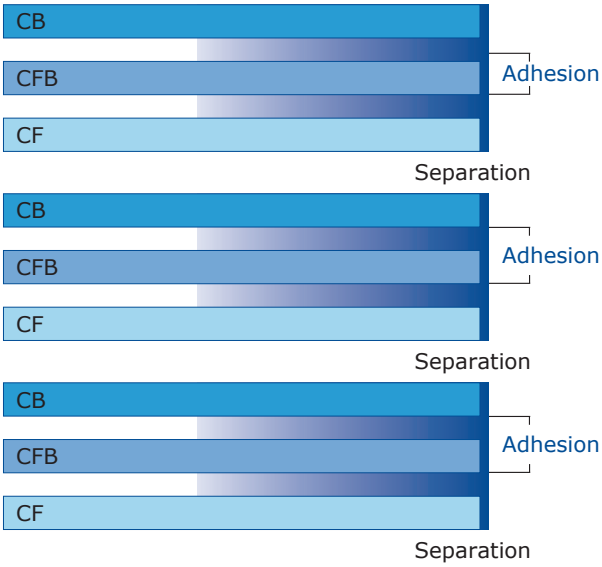
- Keep the press-bar pressure as low as possible.
- Slipping of the stack and discoloration can be avoided by attaching a section of expanded rubber to the press bar.
- Distribute the stacks evenly over the width of the cutter, a height of the stacks of 8–12 cm is recommended.
- Remove protection sheets before cutting the reams.
- Use a blade angle of 19° to 21°.

FANAPART GLUING

FUNCTIONAL PRINCIPLE

The functional principle of the fanapart gluing is based on the different absorbency of coated and uncoated paper surfaces. Within a set, the glue penetrates between the coated CB and CF sides where it causes adhesion.

Only a little glue, or none at all, penetrates between the uncoated reverse side of the CF sheet and the uncoated top side of the CB sheet of the next set with the result that these sides will be separated.



reacto® FANAPART ADHESIVE

reacto® Fanapart Adhesive is a solvent-free glue specially suited to reacto® paper. Our paper cannot be guaranteed to work properly if used with other fanapart glues or if you combine reacto® with paper from other manufacturers. The same applies to gluing combinations with selfcontained SC and SC/CB.

For detailed instructions on the application of reacto® fanapart adhesive please refer to our homepage.

STORAGE

If stored correctly, i.e. at normal room temperature, the glue can be used for up to two years. However, we recommend using it within one year. Glue that has been exposed to frost will no longer work.

SERVICE AND SALES

GLOBAL PRESENCE

We supply printers, paper merchants and converters in more than 100 countries all over the world. The carbonless sales team is in close, constant contact with our global customers.

Qualified representatives and our own sales offices on location around the globe guarantee that you always have a local person to contact.

Koehler's technical customer service is available to all of our business partners to deal with issues relating to the use of reacto® Carbonless Paper.

EXPERIENCE KOEHLER

Our business associates like to visit us at our Kehl factory and see our performance and new investments for themselves.

One example of this is the fully automated high-bay warehouse in Oberkirch, which guarantees fast availability of the most common roll and format specifications. But why not stop by and see for yourself…

ENVIRONMENT AND SAFETY

RESPONSIBILITY TO THE ENVIRONMENT
Environmentally sustainable production is part of our corporate philosophy. The Koehler Group's conservation activities have received numerous regional and national awards. Examples of these activities include membership in support associations, sponsoring streams and rivers, and running campaigns with environmental organizations such as planting campaigns or setting up nesting boxes.

All of our environmentally relevant processes are certified as part of our integrated management system in accordance with DIN EN ISO 14001:2015.

PULP
We use only high-grade ECF bleached pulp from FSC® and/or PEFC certified suppliers to make our reacto® carbonless paper. We ourselves are certified in compliance with both systems. The pulp comes from responsibly managed forests and therefore complies with the European Timber Regulations (EUTR). All Koehler carbonless paper qualities are available on request with FSC® (C016508) or PEFC labels.

WATER
More than 96% of our water consumption is retained within the water cycle, putting us at the top of the European league. The factory at Kehl produces just four cubic meters of wastewater per ton of paper, an extremely low figure which, for the manufacturing of carbonless paper, is almost unequaled in Europe, or for that matter, anywhere in the world.

RAW MATERIALS
Raw materials are selected according to their environmental sustainability – meaning how well they biodegrade and can be recycled – and for their health safety.

INKS
All inks employed are safely recyclable.

RECYCLING OF REJECTS
Our production waste is immediately returned to the production process cycle or, due to the premium quality materials concerned, is used in the manufacture of our Euler ColorTech Paper.

RESIDUAL MATERIALS
Our priority is to avoid waste altogether. If avoiding or reusing waste is not possible, residual materials are all utilized in an eco-friendly manner, and not dumped.

ENERGY
All Koehler power plants work on the principle of cogeneration and circulating fluidized bed combustion. This enables us to stay well below the legal emission limits in all areas.

TRANSPORTATION
Koehler papers are exported worldwide. This compels us to choose eco-friendly modes of transportation. We have taken a major step in this direction by moving certain transport routes from road to rail or water transportation.

PACKAGING
The packaging of reacto® is 100% recyclable.

HARMLESS TO HEALTH
reacto® Carbonless Paper is physiologically and toxicologically harmless if used correctly.

11.21 / GB 0.15 / Digitally printed on Koehler ICEWHITE /Q® 250 gsm + 160 gsm with HP Indigo 12000

Koehler
PAPER

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