

ADHESIVES



Bonding Made Simple...

Bonding Made Simple...



... this constant request from people dealing with practical applications combined with our call to just do so, has been our guiding motive in the present manual.

Competence emerges from experience. It was in the year 1897 that KÖMMERLING began selling high quality shoe adhesives in the shoe capital Pirmasens. In the past 100 years, we have been successful on numerous occasions, through our trail-blazing developments, in opening up new paths for both shoe craftsmanship and the shoe industry. This was the case in 1949, for example, when for the first time in Europe KÖMMERLING used synthetic caoutchouc for the production of shoe sole adhesives. The cold contact adhesive "Kövvulfix" thus introduced a new era in bonding. And still today, new developments in our company provide the living proof for the fact that tradition and progress at KÖMMERLING are closely entwined.

Best adhesives for the workshop - this has always been our philosophy. Simple bonding instructions with a handfull of products that totally cover the whole variety of materials - that was the target of the present manual. In pursuing this goal, we have given particular attention to the problem of material identification. The overview of materials included in the manual will assist you in easily distinguishing the large multitude of materials, thus ensuring a reliable bond. Due to its cooperation with the shoe industry, KÖMMERLING benefits from material knowledge at an early stage when new collections are introduced. This knowledge of the bonding characteristics of new materials is then considered in our bonding recommendations for the shoe industry.

Traditionally, KÖMMERLING has always focussed on quality, research & development and technical service. The certification in accordance with DIN EN ISO 9001 as well as our new development laboratory are testimony to our philosophy. We have sales partners in Germany and abroad who get support from our experienced application engineers in the Pirmasens headquarters. Maintaining its close ties with the shoe trade, KÖMMERLING is embracing the challenges of the future. Try us, we are looking forward to assist you in your bonding applications.

We trust that this manual will be a helpful guide in your workshop and that it will bring about what our motto promises - bonding made simple...

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PUR

Easy to identify foam structure, will swell if brought into contact with solvent.

RUBBER

Develops dry dust when roughened or grinded. Keeps burning after being lit, flickering and smoking, typical rubber smell. Resistant to solvent.

Special form: "Perbunan" is labelled accordingly or labelled as oil- and acid-resistant.

FOAMED RUBBER

(e.g. "Rubrex", "Pommez" or "Terra X")

Porous, shows rub off-effect when roughened or grinded. Continues to burn after being lit, develops however heavy smoke which smells like rubber.

CREPE

Smears when roughened or grinded. Smears when brought into contact with solvent. Typical crêpe smell.

TR

Starts to dissolve when brought into contact with solvent, loses colour and breaks.

PVC

Compact and foamed form soles with a relatively high weight. Smears when roughened or grinded.

EVA

Form soles or sheet ware made of foamed materials with very little weight. Porous and non-smearing when roughened or grinded, gives off dust, however. Burns with a small flame after being lit, just like a candle while smelling like burning wax, doesn't drip, however.

100% LATEX

Shows very strong rub off-effect when roughened or grinded. Resistant to solvent. Extremely soft.

POLYPROPYLENE

Rigid, inflexible material, limited use (heels and heel wedges).

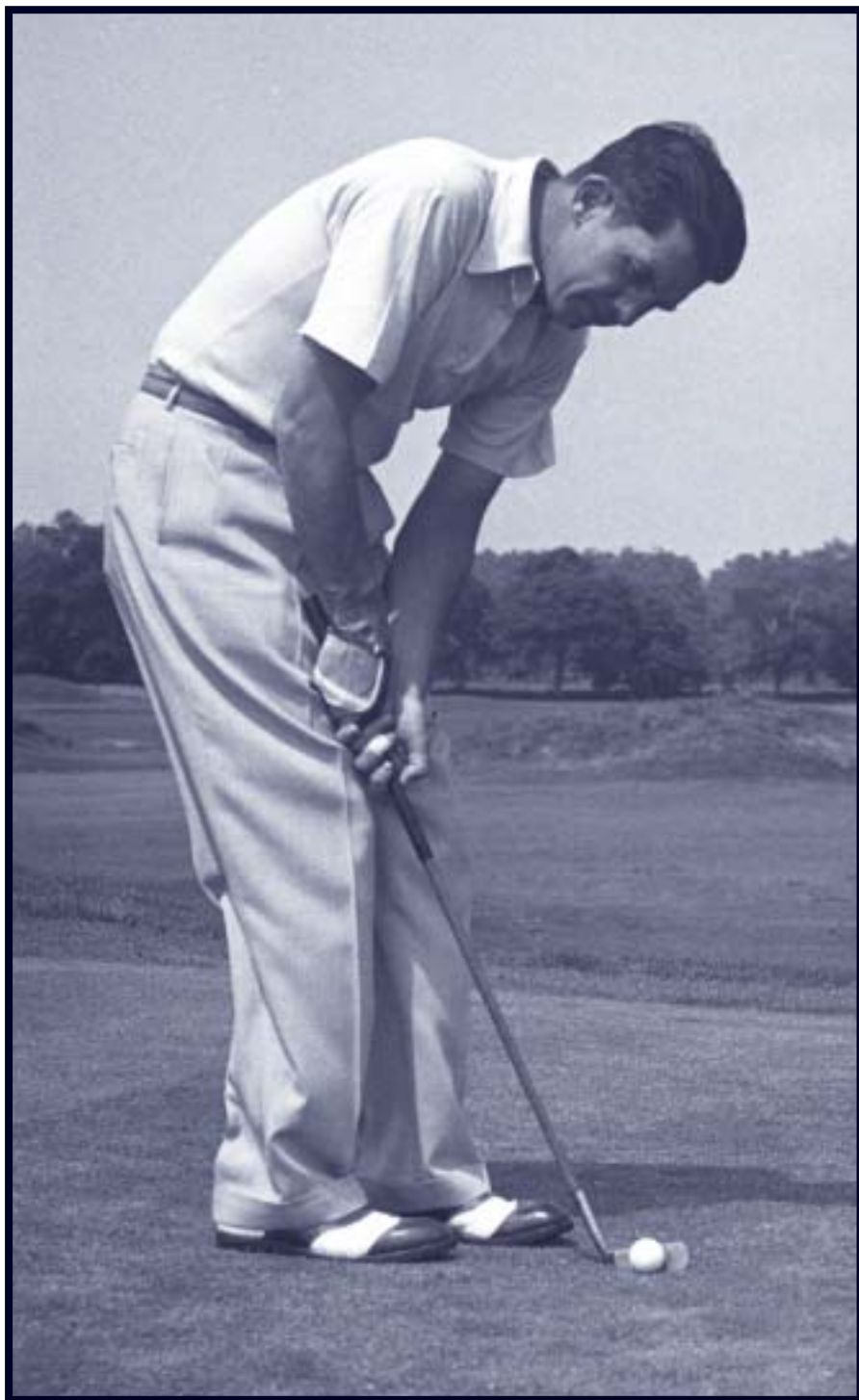


| | LEATHER | PUR | RUBBER | FOAMED RUBBER | CREPE | TR | PVC | EVA | 100% LATEX | POLYPROPYLENE |
|---------------|---------|-----|--------|---------------|-------|----|-----|-----|------------|---------------|
| LEATHER | 1 | • | 1 | • | • | 1 | 5 | 1 | • | 4 |
| PUR | • | • | 3 | 3 | • | • | • | 5 | • | • |
| RUBBER | 1 | 3 | 1 | 2 | 1 | 2 | 5 | 1 | 2 | 4 |
| FOAMED RUBBER | • | 3 | 2 | 2 | • | 2 | 5 | 5 | • | • |
| CREPE | • | • | 1 | • | 1 | • | • | 1 | • | • |
| TR | 1 | • | 2 | 2 | • | 2 | 5 | 5 | • | • |
| PVC | 5 | • | 5 | 5 | • | 5 | • | 5 | • | • |
| EVA | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 5 | • |
| 100% LATEX | • | • | 2 | • | • | • | • | 5 | • | • |
| POLYPROPYLENE | 4 | • | 4 | • | • | • | • | • | • | • |

- From the table, first choose the material combination which applies to your bonding.
- After that see the respective bonding recommendation 1 to 5.

Example :

TR with rubber: bonding recommendation 2




How do I bond :

| | | | | | |
|---------|------|---------|--------|------|-------|
| LEATHER | with | LEATHER | RUBBER | with | CREPE |
| LEATHER | with | RUBBER | RUBBER | with | EVA |
| LEATHER | with | TR | CREPE | with | CREPE |
| LEATHER | with | EVA | CREPE | with | EVA |
| RUBBER | with | RUBBER | EVA | with | EVA |

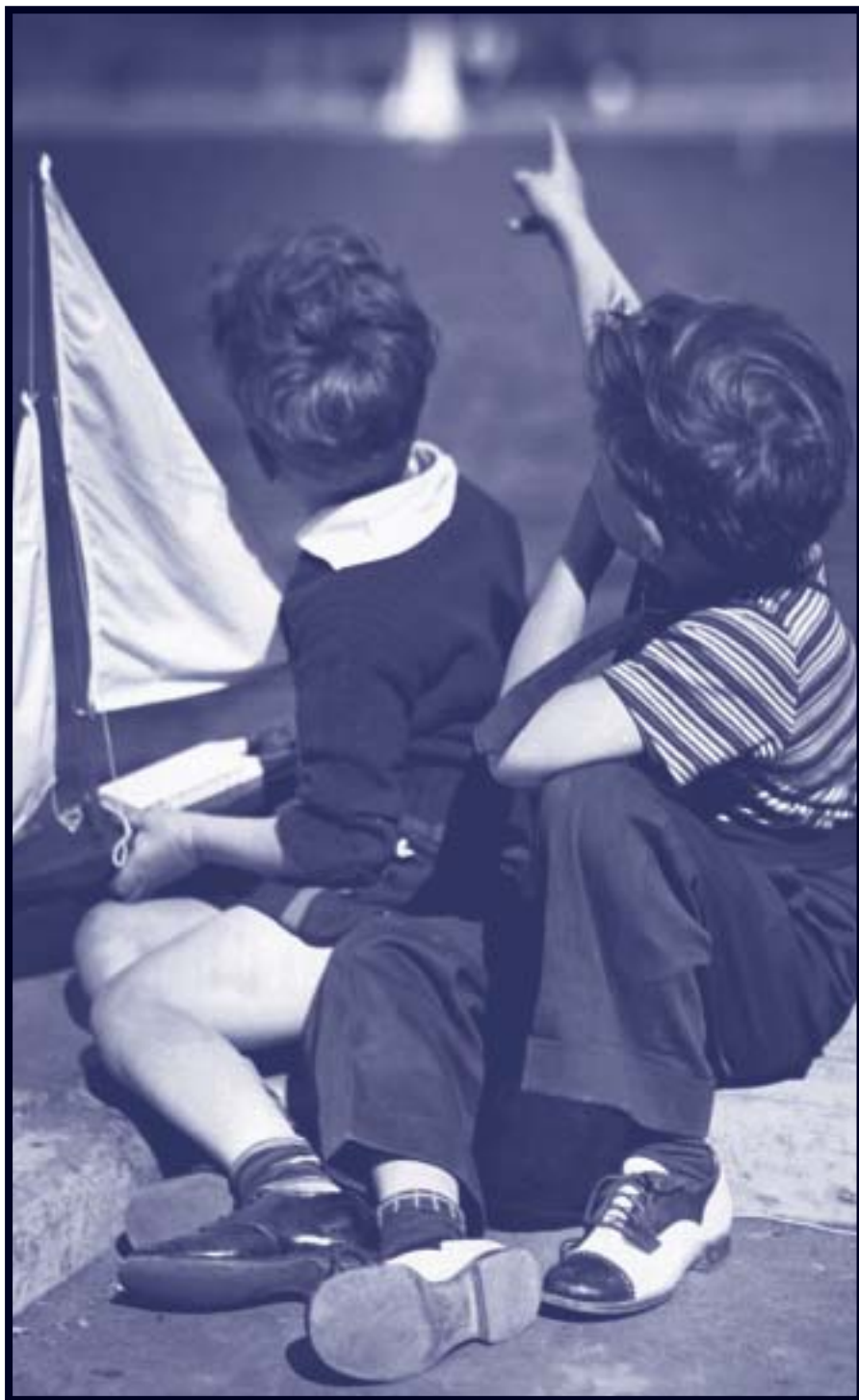
- 1 Roughen or grind both materials to be bonded.
- 2 Apply **MEGABOND** and let it air approx. 10 to 40 minutes.
If the cold bonding time has been exceeded, heat up to 40 ° to 50 °C.
- 3 Join parts and press them together (15 to 20 seconds).
CAREFUL! Soft materials (EVA) should be pressed together applying less pressure.

NOTE

Adding 5 to 10 % of hardener “TR 250” to the adhesive significantly improves the resistance of the bonded materials to heat, humidity, oil, grease and softeners. Adding the hardener results in a two component-adhesive whose pot life of approx. 4 hours needs to be strictly observed.



By the way: Leather cover-soles inside the shoe can also be bonded durably without heat activation by using “Köratex 263”, the solvent-free alternative.



How do I bond :

2

| | | |
|---------------|------|---------------|
| RUBBER | with | TR |
| Foamed RUBBER | with | RUBBER |
| Foamed RUBBER | with | TR |
| TR | with | TR |
| Foamed RUBBER | with | Foamed RUBBER |
| RUBBER | with | 100% LATEX |

- 1** Roughen or grind both materials to be bonded.
- 2** Prime both surfaces to be bonded with **Halosol S** and let them air dry approx. 5 minutes.
- 3** Apply **Körplast SF** and let it air dry approx. 10 minutes. If the cold bonding time has been exceeded, heat up to approx. 40° to 50 °C.
- 4** Join parts to be bonded and press them together (15 to 20 seconds).

NOTE

Adding 5 to 10 % of hardener "TR 250" to the adhesive significantly improves the resistance of the bonded materials to heat, humidity, oil, grease and softeners. Adding the hardener results in a two component-adhesive whose pot life of approx. 4 hours needs to be strictly observed.



How do I bond :

3


Bonding recommendation



- 1** Roughen or grind both materials to be bonded.
- 2** Prime PUR-material once with **Kö-PUR** and let it air dry approx. 5 minutes.
- 3** At the same time, prime the rubber or foamed rubber with **Halosol S** and let it air dry approx. 5 minutes.
- 4** Apply **Körplast SF** to both materials to be bonded and let it air dry approx. 10 minutes. If the cold bonding time has been exceeded, heat up to approx. 40° to 50 °C.
- 5** Join materials to be bonded and press them together (15 to 20 minutes).
CAREFUL! Press together soft materials while applying less pressure.

NOTE

Adding 5 to 10 % of hardener "TR 250" to the adhesive significantly improves the resistance of the bonded materials to heat, humidity, oil, grease and softeners. Adding the hardener results in a two component-adhesive whose pot life of approx. 4 hours needs to be strictly observed.



By the way: Kö-PUR is very favourable for pretreatment of extreme greasy/fibrous leather and absorbent materials.



How do I bond :

4

POLYPROPYLENE with **LEATHER**

POLYPROPYLENE with **RUBBER**

Bonding recommendation

These material combinations are usually needed for small repairs around the heel or heel wedge.

For these repairs we recommend cyanoacrylate-adhesives (i.e. Kö-adhesive C3) which can be applied very precisely with the mouthpiece of the bottle.



How do I bond :

| | | |
|-----|------|---------------|
| PVC | with | TR |
| PVC | with | RUBBER |
| PVC | with | Foamed RUBBER |

- 1 Roughen or grind both materials to be bonded.
- 2 Prime rubber, foamed rubber or TR with **Halosol S** and let it air dry approx. 5 minutes.
- 3 Apply **Körplast SF** to both surfaces to be bonded and let it air dry approx. 10 minutes. If the cold bonding time has been exceeded, heat up to approx. 40 ° to 50 °C.
- 4 Join the surfaces to be bonded and press them together (15 to 20 seconds)

How do I bond :

| | | |
|-----|------|---------|
| PUR | with | EVA |
| PVC | with | LEATHER |
| PVC | with | EVA |

- 1 Roughen or grind both materials to be bonded.
- 2 Prime EVA with **Megabond** and let it air dry approx. 10 minutes.
- 3 Apply **Körplast SF** to both surfaces to be bonded and let it air dry approx. 10 minutes. If the cold bonding time has been exceeded, heat up to approx. 40 ° to 50 °C.
- 4 Join surfaces to be bonded and press them together (15 to 20 seconds).



How do I bond :

| | | |
|---------------|------|-----|
| TR | with | EVA |
| 100% LATEX | with | EVA |
| Foamed RUBBER | with | EVA |

- 1 Roughen or grind both materials to be bonded.
- 2 Prime EVA with **Megabond** and let it air dry approx. 10 minutes.
- 3 Prime foamed rubber, TR or 100 % latex with **Halosol S** and let it air dry approx. 5 minutes.
- 4 Apply **Körplast SF** to both surfaces to be bonded and let it air dry approx. 10 minutes. If the cold bonding time has been exceeded, heat up to approx. 40° to 50 °C.
- 5 Join surfaces to be bonded and press together (15 to 20 seconds).

Megabond

One and two component polychloroprene adhesive for shoe repairing

- For typical shoe materials without separate pretreatment.
- Light colour.
- Free of aromatic solvents.
- Free of acrylates.
- To be processed with or without hardener TR 250.
- High initial bonding strength.
- High tacky bonding surface.
- Favourable brushing properties.
- Cold contact bonding: wait for 10 - 45 min. after applying, put together and press.
- Bonding by activation: if drying time for cold contact bonding is exceeded activate at 40° - 50 °C, put together and press.

Körplast SF

One and two component polyurethane adhesive for shoe repairing

- Especially for heavy strained footwear (e.g. workers' boots, athletic shoes).
- Very suitable adhesive for PVC and PUR.
- To be processed with or without hardener TR 250.
- Suitable for leather, PVC, Rubber, Crêpe, PUR.
- EVA after pretreatment with polychloroprene adhesive (e. g. Megabond).
- TR, foamed rubber, 100% latex must be pretreated with Halosol S.
- Cold contact bonding: wait for 5-20 min. after applying, put together and press.
- Bonding by activation: if drying time for cold contact bonding is exceeded activate at 40° - 50 °C, put together and press.

Cyanoacrylates

- Kö-Kleber C2: low viscosity
- Kö-Kleb-Blitz: medium viscosity
- Kö-Kleber C3: high viscosity, especially suitable for absorbent materials.

Kö-Hardener TR 250 (transparent)

Glue additive for adhesive joints of heavy strained footwear.

- Improves the resistance of the adhesives to heat, humidity, oil, grease and softeners.
- Adhesives and hardener are mixed by stirring them thoroughly. The amount depends on the percentage of weight of the adhesive. In general, for the hardener TR 250 the following amounts apply: 5 to 10 percent. The adding of the hardener TR 250 results in a two component-adhesive.
- Packaging unit: Glass bottles with 100 and 900 g content.

Kö-PUR - the reliable polyurethane pretreatment

One component primer for PUR shoe soles.

- Kö-PUR is also very well suited for the re-sealing of PUR edges.
- Kö-PUR compresses the foam structure and bonds very well with the PUR material thereby developing an ideal adhesive base for bonding with polyurethane adhesives to follow.
- Very favourable pretreatment for greasy leather.
- After Kö-PUR has been applied, the bonding can follow after a brief initial drying time (approx. 3 minutes). The brush used for the polyurethane adhesive, i.e. Köraplast SF can continue to be used without having to remove the adhesive before, or the Kö-PUR residues afterwards.
- Packaging unit: Open neck bottle with 100 ml content
Can with screw-cap containing 330 g

Halosol S - the fast halogenizer

One component chemical pretreatment for special rubber-, TR- and latex-materials, especially for tread soles with coloured padding as found quite often on hiking boots.

- Halosol S establishes a stable bond of the polyurethane adhesive with the material.
- Grind materials. Apply Halosol S sparsely but evenly from the bottle. After an airing time of approx. 5 minutes, bonding with a polyurethane adhesive, i.e. Köraplast SF or Aquaplast.
- Packaging unit: Bottle with 85 ml content

The foregoing information represents values obtained in our laboratory and has been supplied in good faith. It shall not be construed to be legally binding. In particular, it shall not exempt the purchaser from taking responsibility for testing the product supplied so as to determine its suitability for the intended application. Warranty is made exclusively for the constantly high quality of our products.

