

CONREMA®
cold vulcanizing materials
for repairing steel cable
conveyor belts

Conveyor Belt Group

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Introductory remarks

The reliability and service life of a conveyor belt unit depend on the care and maintenance it receives. As maintenance and repair work can only be carried out when the unit is not in operation, time is always an important factor in executing repairs. From a conveyance point of view, downtime is lost time.

CONREMA® cold-bonding conveyor belt repair material as developed by ContiTech is a real time saver. It is the efficient way to deal with all types of belt damage.

The repairs hold so well from the very start that the unit can return to service as soon as the work has been completed.

All that is needed to assure durable repairs of a high quality standard is a certain regard for cleanliness in carrying out the work and close attention to the directions for using the product.

General instructions

Repair applications

- suitable for conveyor belts with the following elastomer base covers:
 - natural rubber (NR)
 - styrene-butadiene rubber (SBR)
 - blended compounds of natural rubber and styrene-butadiene rubber (NR/SBR)
 - chloroprene rubber (CR)
- Not suitable for hot-material belts with a thermal stability in excess of 80°C or belts whose elastomer base is butyl or EPDM rubber
- Not suitable for belts used to convey foodstuffs or butadiene-acrylonitrile-based oil- and grease-resistant cover materials

Storage to DIN 7716

- keep in a cool, dry and, if possible, dark place.
- Recommended storage temperature is 20°C
- keep away from oils and greases

Preparation of damaged area:

- Bevel the damaged area
 - cutting edges at a 30° incline
 - rounding off recesses and edges
- Sand repair area and core rubber using a rotating wire brush, emery cloth or roughing scraper.
- Remove any dust left from sanding.
- Trim off any torn, damaged or corroded steel cables.
- Allow first coat of activated CONTI SECUR® BFA contact adhesive to dry completely
 - Drying time at room temperature (22° C - 25° C) is at least 30 minutes
- allow the second coat of CONTI SECUR® BFA to dry
 - Drying time: test with back of hand, max. 15 minutes.

Directions for use of CONTI SECUR® BFA contact adhesive

- CONTI SECUR® BFA is activated by stirring in the activator solution.
- The mixture can be used for the next 2 - 5 hours.

Attention!

CONTI SECUR® BFA is **not** approved for use underground.

- The following should be kept in mind when using CONTI SECUR® BFA.
 - The material is highly flammable; refrain from smoking during use.
 - Do not inhale fumes.
 - Pay attention to the maximum allowable concentration (MAC)
 - With higher concentrations, a respiratory mask with A2 filter should be used.

Repair materials

CONTI SECUR® BFA Contact Adhesive

- 0,8-, 4,8-, 22,2 and 200 l container are on stock.
- the activator solution is packaged adapted to the container size

RCE Cleansing Agent

- available in 1-liter and 5-liter tins

CONREMA® Repair Tapes

approx. 2mm thick

dimensions:	30 x 10.000 mm
	50 x 10.000 mm
	70 x 10.000 mm
	100 x 10.000 mm
	150 x 10.000 mm
	220 x 10.000 mm
	300 x 10.000 mm
	350 x 10.000 mm

CONREMA® Repair Tapes

with fabric layer, approx. 4mm thick

dimensions:	100 x 10.000 mm
	150 x 10.000 mm
	220 x 10.000 mm
	300 x 10.000 mm

CONREMA® Repair Sheeting

Repair sheeting is supplied in rolls and does not have tapered edges.

with adhesive layer on one side

Sheeting thickness:	1,5 mm
	2,0 mm
	3,0 mm
	5,0 mm

with adhesive layer on both sides

Sheeting thickness:	1,5 mm
	3,0 mm

CONREMA® Filler Rubber

sheeting thickness:	0,8 mm
dimensions:	1.200 mm x 10 m

Note: Specific information on our products is available on request to help you meet your needs.

- *Conveyor belt accessoires 4*: CONTI SECUR® BFA contact adhesive, CONTI PLUS® metal primer, RCE cleaning agent
- *Conveyor accessoires 5*: CONREMA® cold bonding repair material

Repairing chafing damage

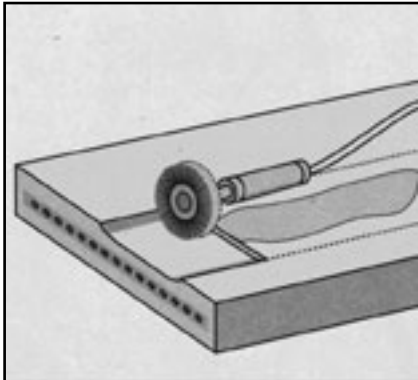
As this type of damage seldom works its way through to the steel cable, the damaged area need not be cut out.

- Remove any trace of conveyed material; area must be dry before proceeding to next step.
- Select patch of appropriate shape, size and thickness. Cut CONREMA® repair tape to size or cut patch from sheeting.

Attention!

In determining the thickness of the material, keep in mind that the repaired area must end up 0.5 to 1 mm below the surrounding cover surface (to avoid subsequent damage from the scrapers).

- Position patch on damaged area and trace contour.

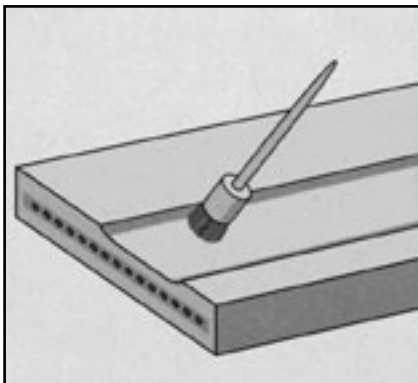


- Remove patch and rough up the area carefully, working 10 mm beyond traced-out area in all directions.

Attention!

Make absolutely sure there are no rubber smears.

- Without wetting area, remove any sanding dust.



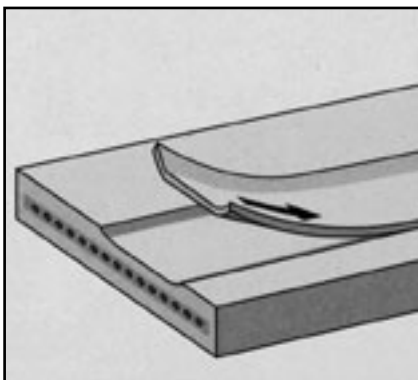
- Apply one coat of activated CONTI SECUR® BFA contact adhesive (using a short-bristled brush) and let dry completely.

- Drying time at room temperature (22° C - 25° C) is at least 30 minutes

- Apply second coat to repair area.

- Remove protective foil from CONREMA® material and apply a thin coat of CONTI SECUR® BFA to adhesive areas of material

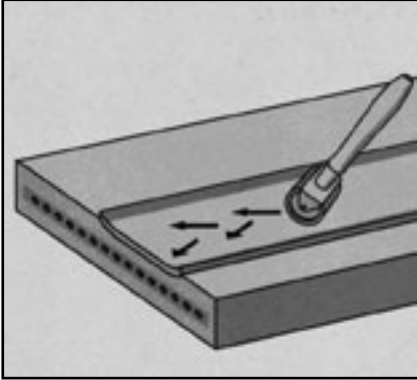
- Drying time: back of the hand test, max. 15 minutes.



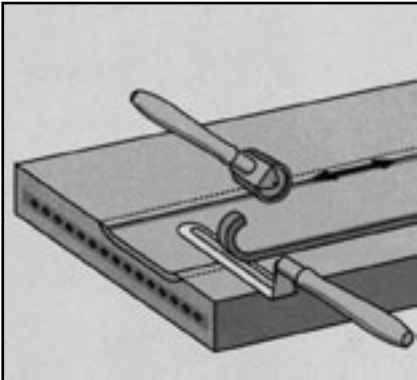
- Place CONREMA® repair material in damaged area.

Attention!

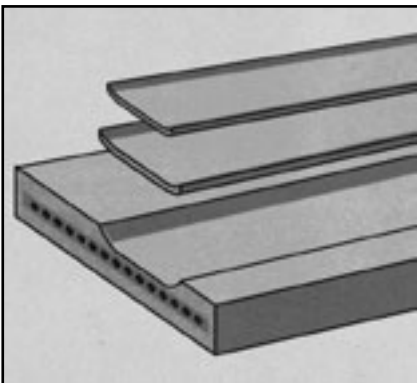
Patches should not be lifted after being applied as this could destroy adhesive effect.



– Press firmly into place with the help of a hand roller, making sure that no air pockets are formed.



– Trim off any material protruding above the cover surface.
– Press edges down one further time.

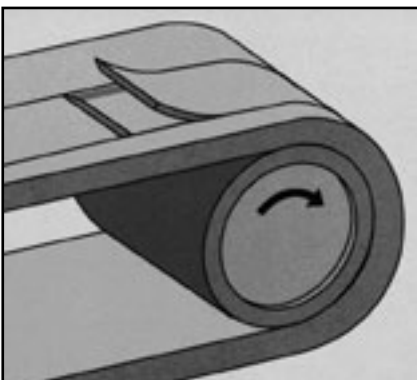


Note:

– In the case of more severe damage to the cover, the damaged area must first be filled with double-adhesive CONREMA® repair sheeting or with filler rubber and then sealed with single-adhesive contact material.

Attention!

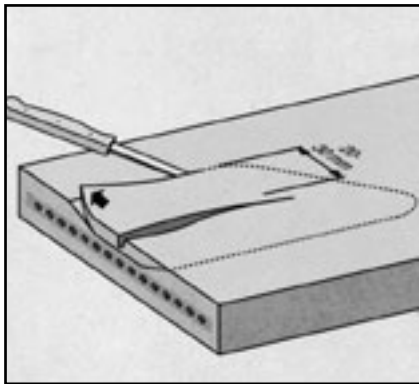
In determining the thickness of the material to be used, please keep in mind that the repaired area must end up 0.5 to 1 mm below the general surface level of the cover.



– In the case of several incidences of chafing damage in sequence, the strips of CONREMA® tape or sheeting are to overlap in a direction opposite to the conveyor belt's direction of travel. The strips should overlap by at least 10 mm.

Repairing cuts and torn cables

- Free area to be repaired of all traces of conveyed materials and allow to dry if wet.
- Trace area to be repaired, allowing for a margin of ca. 20-30 mm around actual damage zone (finishing off with diagonal edge pointing in direction of belt travel)
- Holding the knife at a 30° angle to surface, remove cover material and, if necessary, core rubber to depth required. Commence cutting 20 to 30 mm outside of damaged area.



- In the case of torn cables, trim exposed cable ends down to where cable is embedded in the core rubber.
- Using rotating wire brush, rough up carefully the cutted -out area to very smooth finish (sanding roughly 10 mm beyond limits of damaged area).

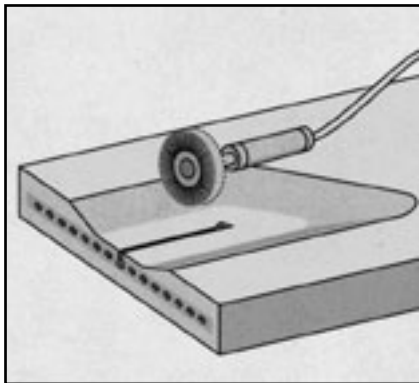
Attention!

Avoid any rubber smears.

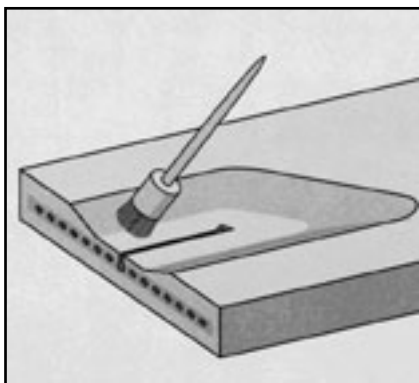
- Remove any dust left from sanding.
- Select or cut out appropriately sized patches. Fill area to be repaired with double-adhesive contact material and then seal it with single-adhesive contact material, allowing sufficient lateral overhang for each of the layers.

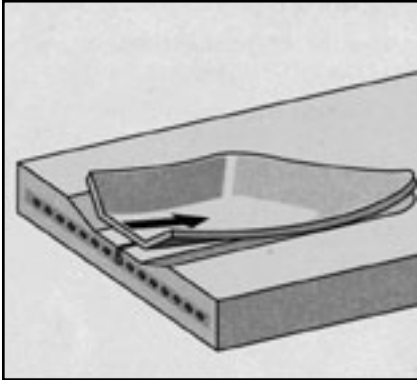
Attention!

In determining the thickness of the material to be used, keep in mind that the surface of the repaired area must end up 0.5 to 1 mm below the general level of the cover surface.

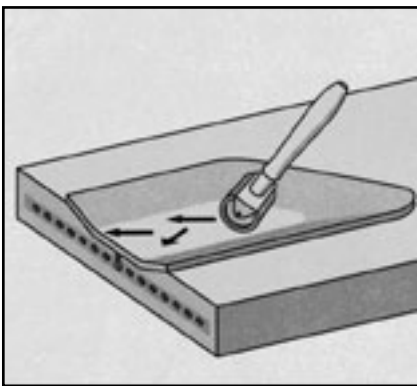


- Apply the roughed up area with one coat of activated CONTI SECUR® BFA contact adhesive (using short-bristled brush) and allow to dry thoroughly.
 - Drying time at room temperature (22° C - 25° C) is at least 30 minutes
- Application of second coat to repair area.
- Remove protective foil from adhesive area of CONREMA®.
- Apply one thin coat of CONTI SECUR® BFA to adhesive area.
 - Drying time: back of the hand test, max. 15 minutes.





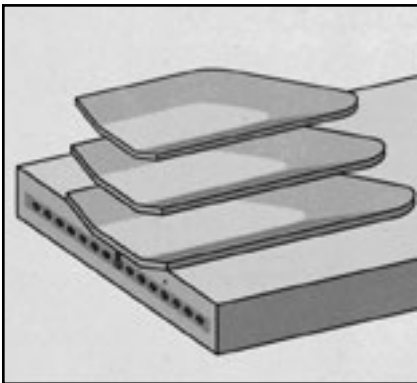
– Position CONREMA® repair sheeting over the damaged area.



– Using hand roller, press firmly into place, rolling outwards from center. Make sure no air pockets are created.

Attention!

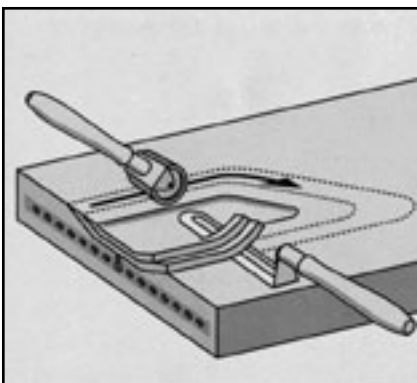
Do not lift patches after they have been put in place as this could destroy adhesive effect.



– If necessary, apply further layers of double-adhesive contact material, giving each just one coat of CONTI SECUR® BFA and allowing time for contact adhesiveness to form.

- Drying time: back of the hand test, max. 15 minutes

– Seal damaged area with single-adhesive contact material.

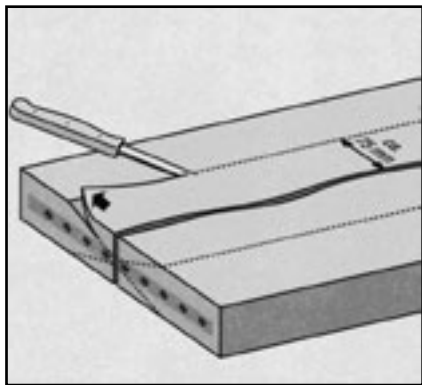


– Trim off protruding material and press edges down one further time with hand roller.

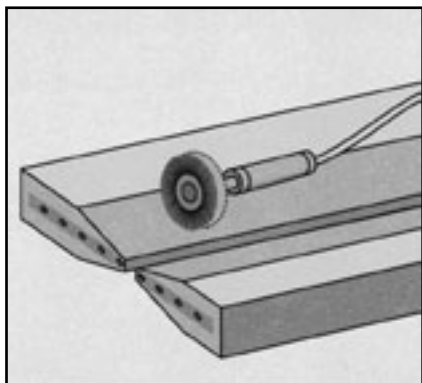
Note:

– In the case of minor damage, one layer of single-adhesive contact material may be sufficient.

Repairing extended tears by cutting out the damaged area



- Free damaged area of all traces of material conveyed and allow to dry if wet.
- Outline a strip 75 mm to either side of the longitudinal tear on both the top and bottom sides of the cover. Remove strip outlined, cutting at an angle from edge of strip down to cable in damaged area. Holding the knife at a 30° angle to surface.



- Thoroughly rough up cut-out areas on both sides of cover with rotating wire brush (sanding roughly 10 mm beyond the damaged area).

Attention!

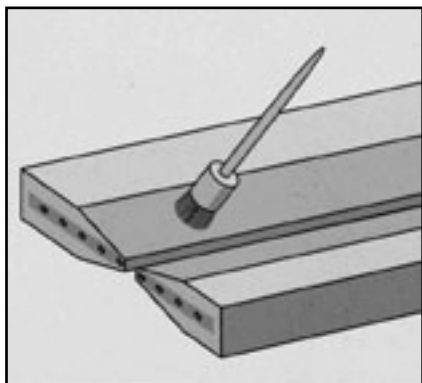
Avoid any and all rubber smears.

- Without wetting area, remove any dust left from sanding.

- Select or cut out appropriately sized piece of CONREMA®. The repair area is first filled with double-adhesive contact material and then sealed with single-adhesive contact material.

Attention!

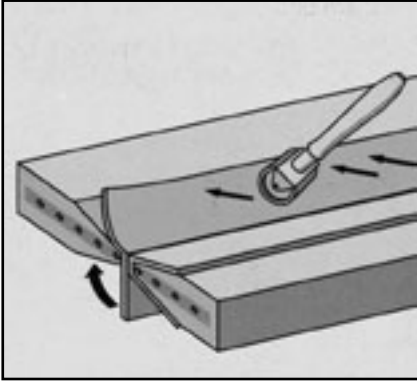
In determining the thickness of the material to be used, please keep in mind that the surface of the repaired area must end up 0.5 to 1 mm below the general level of the cover surface.



- Using a short-bristled brush, apply single coat of activated CONTI SECUR® BFA contact material to edges of tear and roughed up surfaces. Allow to dry thoroughly.

- Drying time at room temperature (ca. 22 - 25°C): at least 30 minutes.

- Application of second coat to repair area
- Remove protective foil from first repair layer.
- Apply one coat of CONTI SECUR® BFA to adhesive area of layer.
- Drying time: back of the hand test, max. 15 minutes.

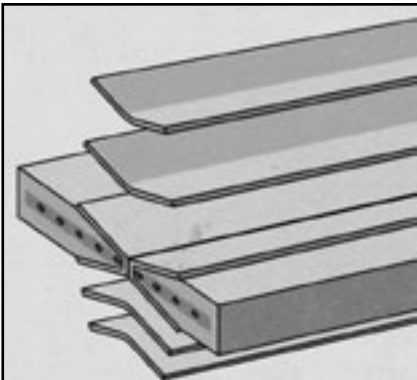


- Thread first ply of coated repair material through the tear, wrapping it around the top and bottom sides of the cover.

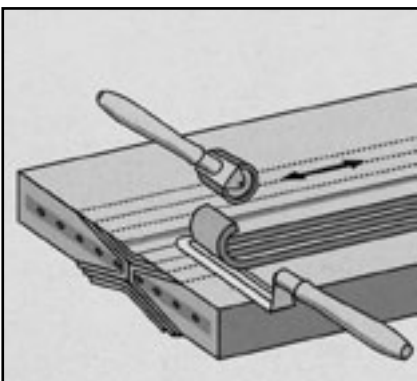
Attention!

Do not lift patch after it has been put in place, as this can destroy the adhesive effect.

- Using hand roller and working outwards from center, press patch firmly into place.
- After the repair material has been pressed into place, thinly coat the exposed contact layer side with CONTI SECUR® BFA.
 - Drying time: back of the hand test, max. 15 minutes
- Press together edges of torn area.



- Working on both sides of cover, fill repair area with double-adhesive CONREMA® repair material, working to within 3 mm or so of surrounding cover surface. Each contact layer should be given just one coat of CONTI SECUR® BFA and then allowed to dry to point of adhesiveness.
- Finish off work by sealing with an appropriately thick layer of single-adhesive CONREMA® sheeting.



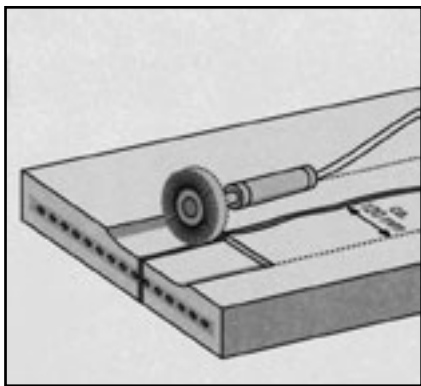
- Trim off any material protruding above surface level on either side of cover.
- Press down edges one further time with hand roller.

Provisional repair of extended tears done without removal of damaged area

Attention!

This method is advisable only for conveyor belts with a maximum width of 1,600 mm and a maximum speed of 2,5 m/s.

Repairing the top side:

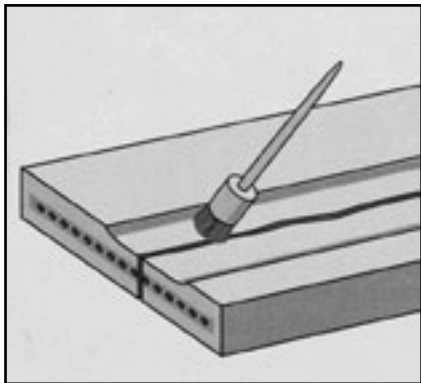


- Free damaged area of all traces of conveyed materials and allow to dry if wet.
- Outline enlarged area of damage, extending outwards ca. 120 mm to either side of tear.
- Rough up the marked area thoroughly with rotating wire brush, going about (10 mm beyond the zone outlined).

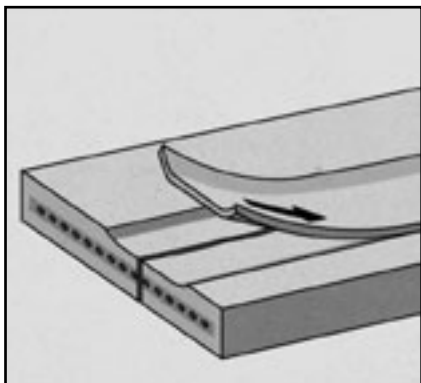
Attention!

Avoid any and all rubber smears.

- Without moistening area, remove any dust left from sanding.
- Cut 220 mm wide strip of CONREMA® repair tape to appropriate length or cut out appropriately sized piece of single-adhesive contact material.



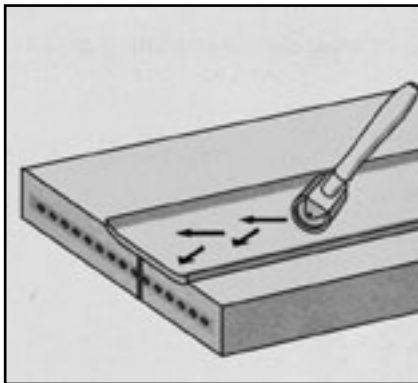
- Apply the roughed up area with one coat of activated CONTI SECUR® BFA to sanded area (with a short-bristled brush) and allow to dry thoroughly.
 - Drying time at room temperature (ca. 22 - 25°C) is at least 30 minutes
- Apply second coat to repair area.
- Remove protective foil from repair material.
- Apply one thin coat of CONTI SECUR® BFA to contact layer.
 - Drying time: back of the hand test, max. 15 minutes



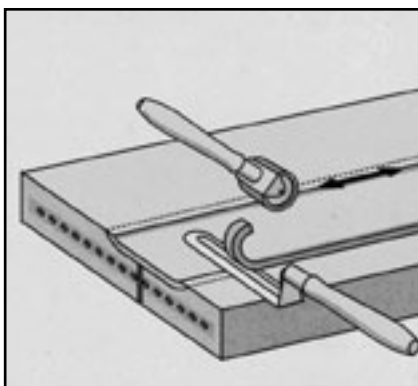
- Apply CONREMA® repair sheeting or CONREMA® repair tap

Attention!

Do not lift patches after they are in place as this can destroy adhesive effect.



- Roll down firmly with hand roller, working outwards from center to avoid formation of air pockets.

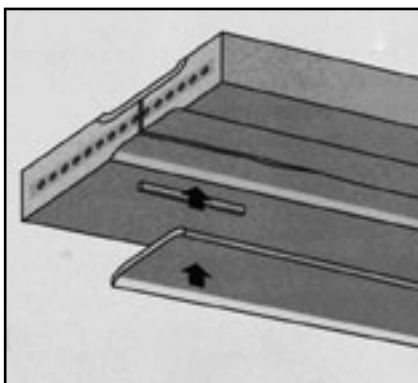


- Trim off any material protruding above surface of cover.
- Press down edges one further time with hand roller.

Note:

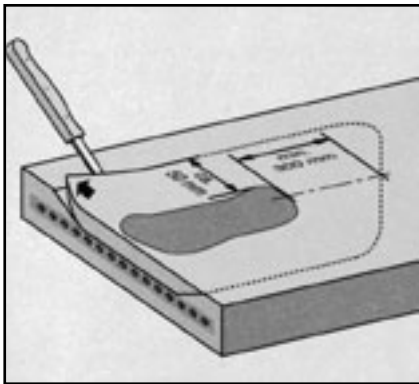
Repair of the bottom side can be postponed briefly if belt is urgently needed for conveyance operations.

Repairing the bottom side:

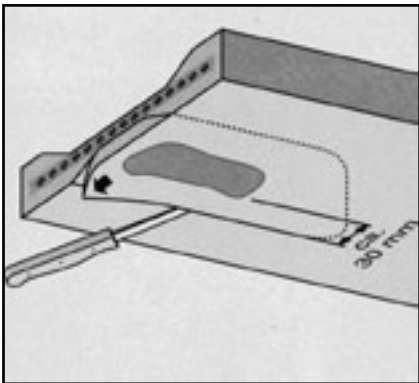


- Trace strip running length of tear and extending roughly 90 mm to either sides of tear.
- Prepare the outlined strip as described and apply one coat of activated CONTI SECUR® BFA to sanded area (with short-bristled brush).
Allow to dry thoroughly.
 - Drying time at room temperature (22° C - 25° C) is at least 30 minutes
- If the tear forms a crevice, fill with double-adhesive CONREMA® repair sheeting.
- If there is no crevice, apply second coat of CONTI SECUR® BFA to the edge of the tear (with a short-bristled brush).
 - Drying time: back of the hand test, max. 15 minutes.
- Press edges of tear together.
- Proceed as for the top side.

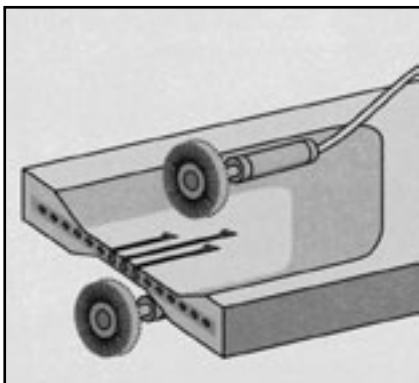
Repairing impact damage with no more than three severed cables



- Free damaged area of any trace of conveyed material and allow to dry if wet.
- Trace a repair area extending about 50 mm to either side of actual impact damage (measured from the first undamaged cable outward) and continuing in the belt's direction of travel for at least 300 mm beyond the puncture zone, finishing off with a diagonal edgeline pointing in the direction of belt travel.
- Holding the knife at an angle of about 30° to the surface of the belt, cut out the outlined area down to within a hair's breadth of the cables.

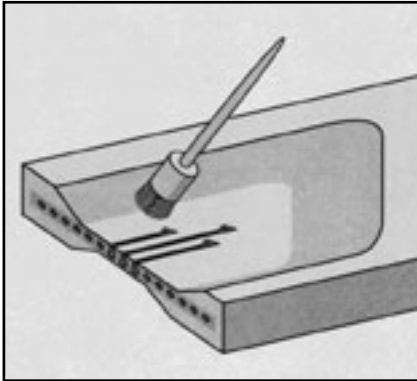


- Trace a repair area on bottom side extending about 30 mm to either side of the puncture damage.
- Holding the knife at an angle of about 30° to the surface of the belt, strip the damaged area from the belt down to within a hair's breadth of the cable ends.



- Step the damaged cables.
 - Using a rotating wire brush, thoroughly rough up the stripped areas on both sides of the conveyor belt, working ca. 10 mm beyond the actual damage zone.
- Attention!**
Avoid any and all rubber smears.
- Remove any dust left from sanding

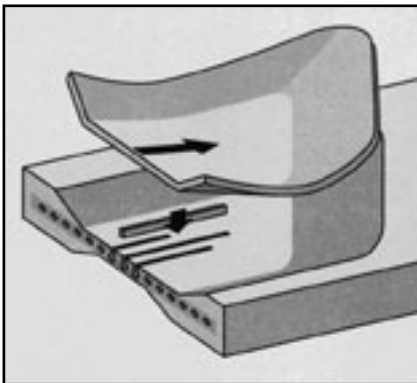
Restoration of top side:



- Coat roughed up area zone on top side with activated CONTI SECUR® BFA (using short-bristled brush) and allow to dry completely.
 - Drying time at room temperature (22° C - 25° C) is at least 30 minutes
- Select or cut out appropriately sized patches, taking into account lateral excess for individual layers. The repair area is first filled with double-adhesive contact material and then sealed with single-adhesive contact material.

Attention!

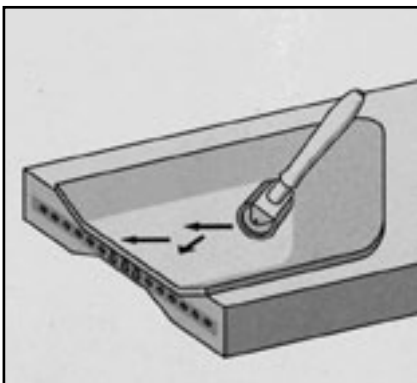
- In determining the material thickness, keep in mind that the repaired area must end up recessed 0.5 to 1 mm below the overall surface of the belt cover.
- Application of second coat to repair area.
 - Remove protective foil from first repair layer.
 - Apply one thin layer of CONTI SECUR® BFA to contact layer.
 - Drying time: back of the hand test, max. 15 minutes.



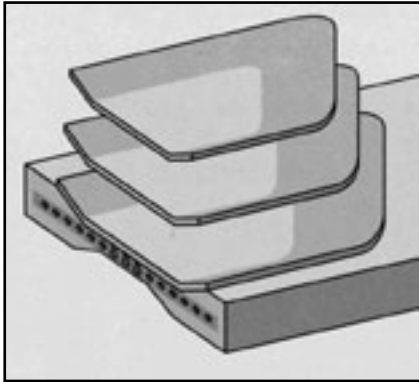
- Fill any remaining holes and surface irregularities between the steel cables with coated double-adhesive CONREMA® repair material.
- Put coated repair material in place.

Attention!

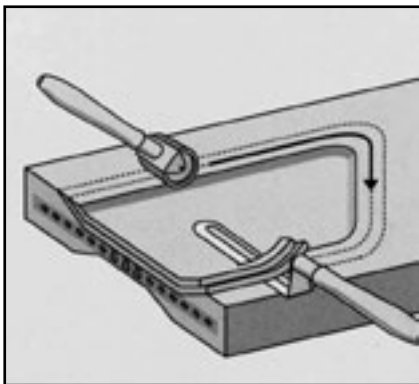
Do not lift patches after putting them in place as this could destroy their adhesive effect.



- Using a hand roller and working from the center outwards, press the patch firmly into place, making sure that no air pockets form.



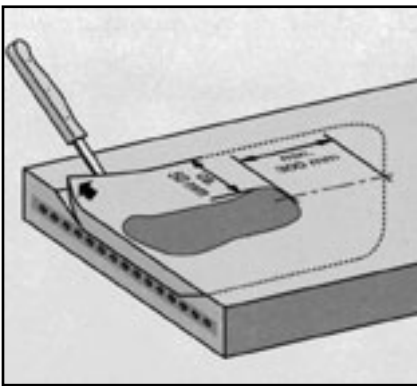
- Fill area to be repaired on cover surface with double adhesive CONREMA® repair material, working to within 3 mm or so of cover surface. Coat each contact layer just once with CONTI SECUR® BFA, allowing time for adhesiveness to form
 - Drying time: back of the hand test, max. 15 minutes
- Finish off with a correspondingly thick piece of single-adhesive CONREMA® repair sheeting.



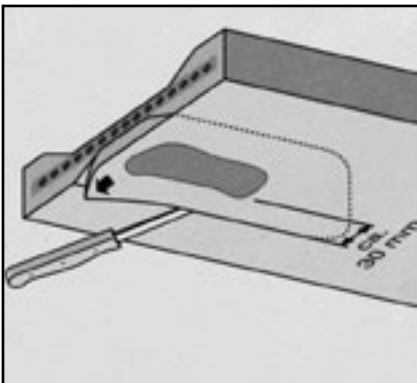
- Trim off any repair material protruding beyond surface of cover.
- Press down cut edges with hand roller.

Restoration of bottom side:
Proceed as described above for top side.

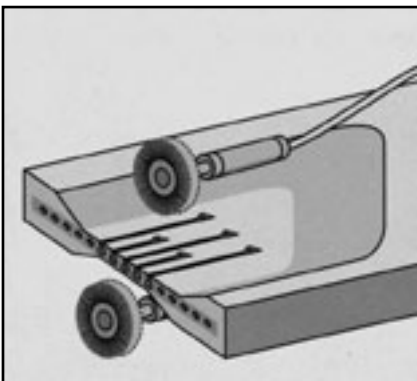
Repairing impact damage with more than three severed cables



- Free damage area of all traces of conveyed material and allow to dry if wet.
- Trace a repair area extending about 50 mm to either side of puncture zone (whereby the first undamaged cable is to be regarded as outer limit of actual puncture zone) and continuing in the belt's direction of travel for at least 300 mm beyond the puncture zone, finishing off in a diagonal edgeline pointing in the direction of travel. Holding the knife at a 30° angle to surface.

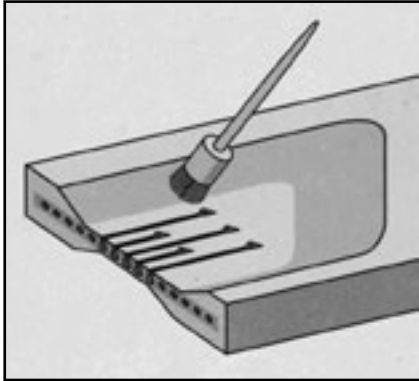


- Trace repair area on bottom side, extending the limits of the area roughly 30 mm to either side of the actual puncture zone.
- Holding the knife at a 30° angle to the surface of the cover, strip away repair area down to within a hair's breadth of cable ends.



- Trim the damaged steel cables with alternating up and down steps of at least 30 mm.
 - Rough up stripped areas thoroughly on both sides of cover with rotating wire brush (going about 10 mm beyond the actual damage zone).
- Attention!**
Avoid any and all rubber smears.
- Remove any dust left from sanding.

Restoration of top side:

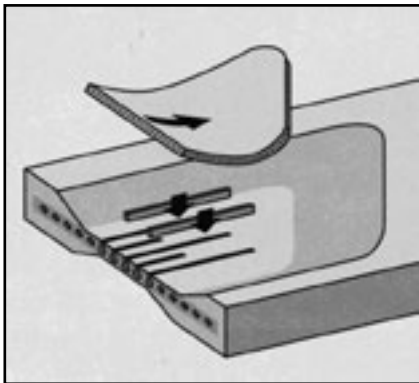


- Coat roughed up damage areas with activated CONTI SECUR® BFA (using a short-bristled brush) and allow to dry thoroughly.
 - Drying time at room temperature (22 - 25°C): at least 30 minutes.
- Select or cut out appropriately sized patches of CONREMA® repair material, allowing for lateral overlap of respective layers. The first layer consists of a piece of double-adhesive repair sheeting with fabric-layer reinforcement, cut without overlap! The repair area is then filled with double-adhesive contact layer material without fabric-layer reinforcement. Work is finished off with a single-adhesive contact layer material.

Attention!

In determining the thickness of the material to be used, please keep in mind that the repaired area must end up 0.5 to 1 mm below the general level of the cover surface.

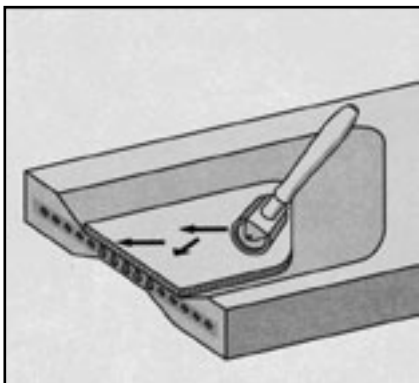
- Application of second coat to entire repair area.
- Remove protective foil from first repair layer (repair sheeting with fabric-layer reinforcement).
- Apply thin coat of CONTI SECUR® BFA to contact layer.
 - Drying time: back of the hand test, max. 15 minutes.



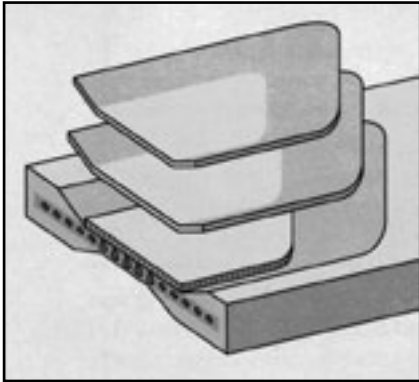
- Fill any holes or surface irregularities between the steel cables with coated double-adhesive CONREMA® repair material.
- Put material in place.

Attention!

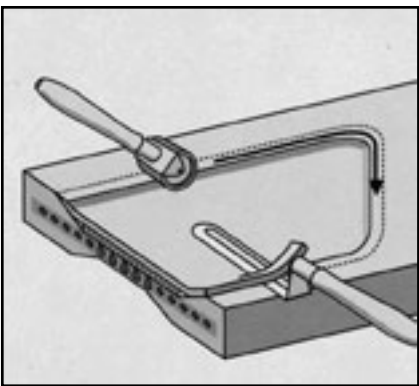
Do not lift patches after putting them in place as this could destroy the adhesive effect.



- Using hand roller and working outwards from center, press repair material firmly into place, making sure that all steel-cable ends are completely covered and that no air pockets remain.



- Fill repair area with double-adhesive CONREMA® repair material, working to within roughly 3 mm of surrounding cover surface level. Apply one coat of CONTI SECUR® BFA to each layer of filling and allow layer to attain adhesive quality
 - Drying time: back of the hand test, max. 15 minutes
- Finish off by applying an appropriately thick piece of single-adhesive CONREMA® repair sheeting.

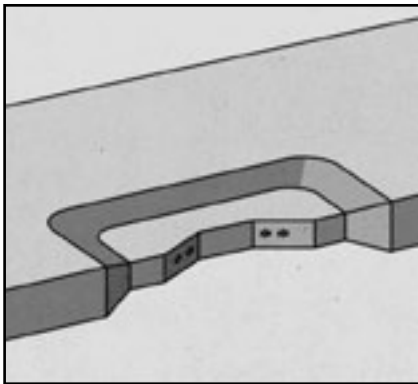


- Trim off any repair material protruding beyond surface of cover.
- Press cut edges down firmly with hand roller.

Restoring the bottom side:

Proceed as described above for top side, albeit without using repair sheeting with fabric-layer reinforcement.

Repairing edge damage with no more than two torn or damaged cables



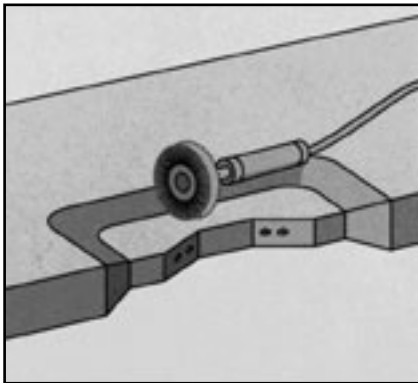
- Free damaged area of all traces of material conveyed and allow to dry if wet.
- Trace the area to be repaired on the conveyor belt. Cut out a piece of single-adhesive CONREMA® repair material of appropriate width and length and position it over the damaged area, making sure it covers the area completely in all directions.

- Cut out the damaged belt edge, being careful not to remove the rubber from any undamaged cable.

Attention!

Torn or damaged cables are to be trimmed down flush with the surface.

- The long ends are cut out at a continuous 30° angle.

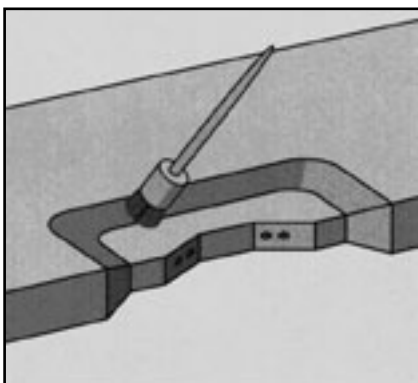


- The outlined area to be repaired on the top and bottom sides is cut out at such an angle as to leave the CONREMA® repair material 1 mm below the cover.
- Using a rotating wire brush, to rough up the enlarged cut-out area thoroughly. (Working ca. 10 mm beyond the area traced).

Attention!

Avoid rubber smears.

- Remove any dust left from sanding.



- Apply one coat of activated CONTI SECUR® BFA to roughed up surface (using short-bristled brush) and allow to dry completely.

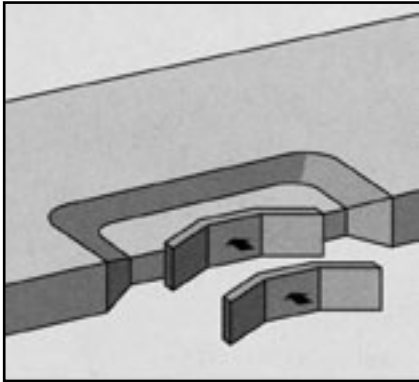
- Drying time at room temperature (22° C - 25° C) is at least 30 minutes

- Cut out piece of double-adhesive CONREMA® repair sheeting for the restoration of the edge (ca. 10 mm wider than the belt thickness).

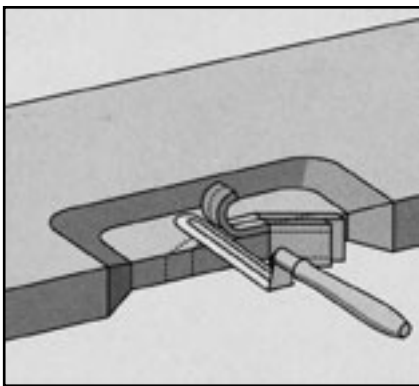
- Remove protective foil from the contact layer.

- Apply a second coat to repair area in edge zone and first coat to repair material.

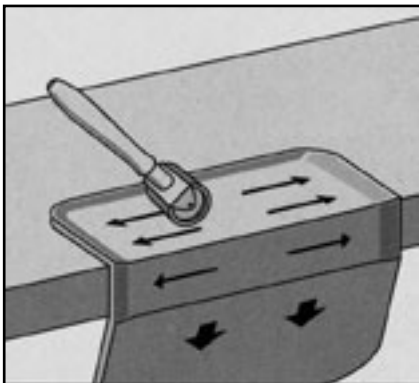
- Drying time: back of the hand test, max. 15 minutes



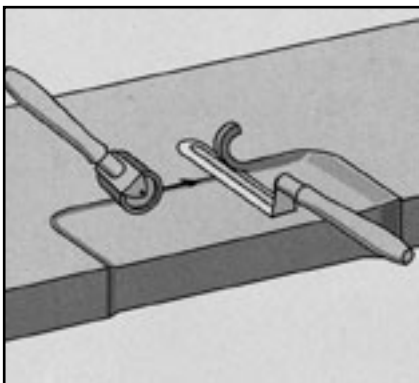
- Position repair material in the damaged area and press firmly (from the center outwards).
- Repeat procedure until edge has been restored, applying just one coat of CONTI SECUR® BFA to contact layer each time and allowing adhesive quality to form
 - Drying time: back of the hand test, max. 15 minutes



- Trim off any repair material protruding over the edge of belt.
- Coat repair area and repair material with CONTI SECUR® BFA.
 - Drying time: back of the hand test, max. 15 minutes



- Apply repair material to top side and press firmly into place, working from center outwards.
- Wrap repair material around edge and press firmly into place with hand roller.
- Continue wrapping procedure, stretching repair material across repair area on bottom side and pressing firmly into place as above.



- Trim off any repair material protruding above cover surface.
- Press down cut edges one further time with hand roller.

Note:

In the case of more extended edge damage, do not overlap the CONREMA® repair material in direction of belt travel. Observe a minimum overlap length of 10 mm.

Notes

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Conveyor Belt Group

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