

WURTH CONVEYOR BELT REPAIR KIT



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WURTH CONVEYOR BELT REPAIR KIT

This kit is designed to perform fast and lasting repairs on rubber conveyor belts, both fabric as well as steel cable. The kit allows repairing damage of high impact belts, such as the ones from a feeder, as well as lower impact belts, in your production line. Additionally, the product can be used in an endless list of other applications and coatings.

The Wurth Conveyor Belt Repair Kit is formulated to perform fast, safe and simple repairs on conveyor belts and industrial coatings!

FAST

Allows for fast and lasting repairs, returning your equipment back to operation in less than one hour.

SAFE

Safe to use. Complies with environmental and health requirements established by international health regulations.

SIMPLE

It can be easily applied by one or two people using minimal tools and equipment.

EXCELLENT PHYSICAL PROPERTIES

Very high adherence, flexibility and resistance to impact, abrasion, and acidic environments.

LIFTER REPAIR IN AGGLOMERATOR DRUM IN COPPER MINE

Features of the Repair

70% of the original height of lifters was compromised. Lifter wear due to exposition to acidic environment and abrasion. Closed environment, temperature of 20°C.

Number of kits used : 10 units.

Repair time : 40 minutes.

Longevity : + 10 months.

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CONVEYOR BELT EDGE REPAIR IN COPPER MINE

Features of the Repair

Detachment of the conveyor belt in all its extension (40 meters). Outdoors, temperature of 15°C.

Number of kits used : 8 units.

Repair time : 90 minutes.

Longevity : + 6 months.

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CABLE BELT MECHANICAL JOINT COATING IN IRON MINE

Features of the Repair

Coating of mechanical joints of the belt for reuse of scraper. Outdoors, temperature of 25°C.

Number of kits used : 2 units.

Repair time : 30 minutes.

Longevity : + 6 months.



PASSING DAMAGE RIP LEAVING STAPLES UNDER SETOFF IN IRON CABLE BELT IN COPPER MINE

Features of the Repair

Past damage compromising 2 cables. The staples were separated and left under the load coating. Afterwards, the conveyor belt repair kit was used as coating in order to reactivate the scraper. Indoors, temperature of 7°C.

Number of kits used : 2 units.

Repair time : 40 minutes.

Longevity : + 6 months.



RECOVERY OF LOAD COATING IN JOINT ZONE COPPER MINE

Features of the Repair

Recovery of load coating in joint zone of the belt. Some zones were left with cables in sight. Outdoors, temperature of 5°C.

Number of kits used : 14 units.

Repair time : 80 minutes.

Longevity : + 2 months.



RIP AND IRON CABLE BELT EDGE REPAIR IRON MINE

Features of the Repair

Detachment of the edge of the belt and past damage compromising 4 cables. Outdoors, temperature of 25°C.

Number of kits used : 1 unit.

Repair time : 40 minutes.

Longevity : + 6 months.

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RIP REPAIR IN AN IRON CABLE BELT IN AN IRON MINE

Features of the Repair

Past damage compromising 4 cables. This repair was compared with a parallel hot repair, giving better results. Outdoors, temperature of 20°C.

Number of kits used : 2 units.

Repair time : 45 minutes.

Longevity : + 6 months.

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RECOVERY OF IMPELLER COATING IN A CENTRIFUGE PUMP.

Features of the Repair

Recovery of the rubber coating of an impeller. Outdoors, temperature of 15°C.

Number of kits used : 1 unit.

Repair time : 20 minutes.

Longevity : + 6 months.



RUBBER LOOP REPAIR GOLD MINE

Features of the Repair

Rubber loop repair. Outdoors, temperature of 25°C.

Number of kits used : 3 units.

Repair time : 40 minutes.

Longevity : + 2 months.



DURATRAY RUBBER HOPPER REPAIR IN COPPER MINE

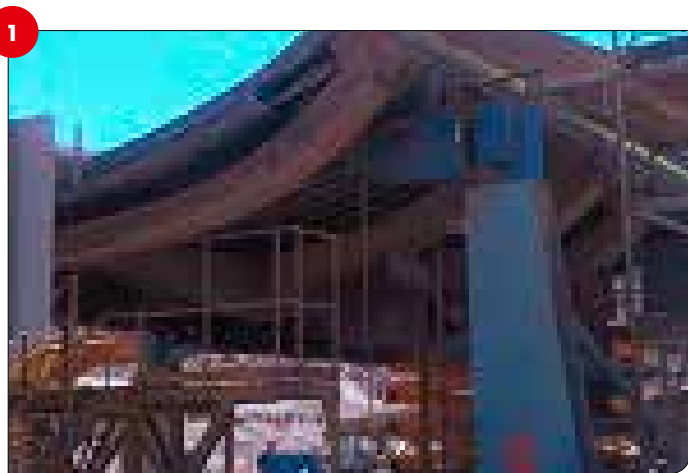
Features of the Repair

Damage of duratray rubber hopper of 10 inch thickness. Outdoors, temperature of 15°C.

Number of kits used : 1 unit.

Repair time : 40 minutes.

Longevity : + 4 months.



MATERIAL SIEVE JOINT COATING IN GOLD MINE

Features of the Repair

Load and return material sieve joint coating. Outdoors, temperature of 25°C.

Number of kits used : 2 units.

Repair time : 40 minutes.

Longevity : + 6 months.



IN SITU REPAIR OF PULLEY COATING DETACHMENT.

Features of the Repair

8 inch diameter detachment in pulley. Outdoors, temperature of 14°C.

Number of kits used : 1 unit.

Repair time : 30 minutes.

Longevity : + 6 months.



ABRASIVE PULP PUMP COATING RECOVERY IN IRON MINE

Features of the Repair

Recovery of the rubber coating of an abrasive pulp pump to avoid filtrations. Outdoors, temperature of 15°C.

Number of kits used : 1 unit.

Repair time : 20 minutes.

Longevity : + 6 months.



RECOVERY OF OIL HOSES FOR REPLENISHING LABORS

Features of the Repair

Hose with lumps, perforations and rubber detachments in all its extension.

Number of kits used : 8 units.

Repair time : 2 and a half hours.

Longevity : + 6 months.





CONVEYOR BELT REPAIR KIT PRODUCT DEMONSTRATION

Art. No. 0893 500 110





WURTH CONVEYOR BELT REPAIR KIT - FAQ

1. What elements are included in the Conveyor Belt Repair Kit?

The conveyor belt repair kit contains a jar with liquid resin, a catalyst, a cleaning solvent, a rubber primer, a pair of latex gloves, a mixing paddle, and a spatula.

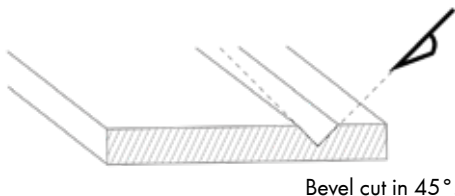
2. How long does it take for the product to set?

15 minutes at 25°C. Wait 1 hour before using the conveyor belt after repair.

Note: Setting time can vary, depending on room temperature. At lower temperatures the time could be increased (+/- 5 min.); and at high temperatures it could decrease (+/- 5 min.).

3. How should the belt surface (rubber) be prepared prior to the application of the product?

In the case of very fine surfaces, with thickness of 3 mm or less, the zone must be scraped with an electric brush at low rotation speed (750 to 900 r.p.m) on and around the damaged zone. In areas with thickness greater than 3mm, a bevel must be cut (45° cut) around the edges of the damage so – in this manner – leave a greater contact extension between the rubber and the resin (check scheme below) and scrape with electric brush at low rotation speed. In the event of passing rips or damage, perform the same procedure including also the lower surface (return).



Bevel cut in 45°.

4. How much volume can be covered with one Wurth Kit?

1,830mm x 8mm x 50mm. As a reference, a conveyor belt with more damage in the shroud zone of 10cm width – and where fabric is in sight (3 mm depth) – one kit is used in average to cover a 2.5m length.

5. After application of the product and when the consistency is similar to chewing gum and starts to stick to the spatula, Is it possible to delay hardening to better adjust the product to the damaged zone?

A good way to delay hardening is pour a small amount of cleaning solvent (bottle N° 1) over the resin still under catalysis. In this manner, it will become more flexible to be accommodated with spatula or with hand (always using the gloves provided with the kit).

6. Is it possible to apply the product over fabric belts and steel cables?

Yes, the product can be applied over any type of rubber conveyor belts, either with fabric or steel cable base. For the latter, and when cables are exposed and in sight, avoid removing all of the rubber when scraping the surface of the cables. Take into account that the product adheres better to rubber than to iron.

7. What other type of equipment can be repaired with this product?

Other typical applications of the product are: impeller coating recovery, rubber hopper repair in mining rucks, pulley recovery, repair of all types of coating of natural or synthetic rubber; protection of pieces and equipment exposed to acid environments, recovery of rubber lifters in agglomerate drums, etc.

8. I need to apply the resin over a surface and have it drain quickly, Is there a way to turn it more liquid?

Yes, before mixing the resin with the catalyst, pour between 1/2 and up to one bottle of cleaning solvent inside this substance and mix. This will turn the resin to a more aqueous state, similar to water.

9. How can I obtain a better finish in a damage repaired with the conveyor belt repair kit?

Once the resin is applied over the damage, and when set and has lost its sticky consistency, the repair can be manually adjusted, using the cleaning solvent (hands must be protected with latex gloves) until the desired finish is achieved. This allows

for elimination of potential surface bubbles or "orange skin" marks that can appear.

Note: These anomalies do not affect the quality of the repair, only its appearance.

10. What can I do if the repair has set?

There are two options:

- A) When the product has just set, but still has not reached its maximal hardness and presents a consistency similar to that of cheese, the thickness of the repair can be levelled with a knife.
- B) Once the resin has already reached a higher hardness level (close to the final hardness: 85 Shore A), it must be scraped with a grinder and a wire brush to wear down enough of the product to reach the desired thickness.

11. What are the main advantages of this product compared to other repair alternatives?

This product is distinguished from the competition for:

- Being a fast repair, this product does not take more than 1 hour from the time the repair work starts to the time the equipment is back in operation.
- Great durability and adherence.
- Higher production.
- Decrease in production costs.
- High resistance to impact and exposition to acid.
- High flexibility (up to 300% elongation)
- Easily mouldable to repair damages in curves or angles.
- Safe packing and handling for the user. Simple to implement safety measures, decreasing risks of accidents.
- Easy to apply.

12. Why is the product not sold in large volumes?

Being a fast-setting product, if sold in larger containers, it would set before being able to apply completely, thus losing a great part of the content.

13. How can I contain the resin to repair pass-through damage, for example, a hole?

Non-stick PVC film must be used, installing it with impact staples in the lower part of the damage, and pour the resin over it until covering the whole area. Wait until the setting of the substance (45 minutes approximately) and then remove the film by hand (staples will come off with the film).

14. In the case of pass-through damages or rips (a hole), Where should I apply the cleaning solvent and primer?

In this type of situation, it is advised to apply these products on both surfaces, top (impact surface of the belt) and bottom (returning surface of the belt). Once the primer is dry, place the film to contain the resin.

15. At what temperature should I store this product, and what should I do if the container is exposed to low temperatures?

The product must be stored at temperatures between 15°C and 35°C. If exposed to lower temperatures, the resin can tend to crystallize, turning its mix with the catalyst and later application difficult. To turn the substance back to a liquid state, the container can be heated in a microwave for 1 minute; put it close to a heat source, for example, a halogen bulb; or take the resin out of the container and expose it directly to sunlight.

16. Under what storage conditions could the resin harden?

The product tends to harden when stored at temperatures below 10° C for prolonged periods of time. It is recommended the storage at temperatures between 15°C and 35°C.

17. May the product be applied on wet surfaces?

No, the surface must always be dry, clean, and free of impurities. If the chosen area is wet, it must be dried with a hot air gun. If humidity is superficial, the scraping process will suffice to remove the first layer of rubber that is wet.

18. Once the resin is mixed with the catalyst (bottle N°3), May I save the remaining product and use it later?

No, once the chemical reaction starts, the whole resin will harden.

19. What should I do if the product does not properly set or if the expected hardness is not reached?

If this happens, it means that the mix was not performed in the correct ratio, i.e. 1:1. Thus, the chemical reaction will not be appropriate and the final product will not set as required.

20. Is there any way to accelerate the resin setting?

If you wish to accelerate the process, a hot air gun can be used to elevate the temperature of the substance, once applied to the damage and the setting has already started. This alternative is useful when performing a repair in extreme cold conditions, where setting is slower.

21. Scraping the surface the area was contaminated with dust, Is it necessary to go back to previous steps?

Yes, if the surface is contaminated in any step of preparation, it must be returned to the step of application of cleaning solvent and continue with the process normally. Note: characteristic environmental dust in mining sites does not affect repair, only the dust on the surface which contaminates the zone.

22. I opened many resin containers for one repair and did not use all of them. Can they be saved for later use?

Yes, as long as they have not been mixed with the catalyst. Being plastic containers they can be closed and stored in their original packing, to be used in future repairs.

23. What safety measures should I have when applying the product?

Always check the Safety Data Sheet before use. DO NOT SMOKE or use flame sources near this type of products.

24. What is the function of the primer?

This product generates a reaction on the surface, opening the pores of the rubber belt for 10 minutes, time in which the resin already mixed with the catalyst should be applied. The idea is to produce a mechanical bond between this substance and the rubber once the primer effect ends. It is essential to consider that the resin must be applied in this term in order to achieve the desired effect. If for any reason this time is passed, another layer of primer must be applied before using the resin.

25. I want to repair a longitudinal damage of 50m long by 10cm wide, Can I apply the cleaning solvent and primer in all the extension and then gradually apply the mixed resins?

No. Remember that the primer effect lasts for 10 minutes once applied. In a repair of this features, it is advised to prepare the surface in extensions of 5 to 10 m to ensure that this period of time is not exceeded.

26. If time and operation of the equipment cause some wear on the repair, What procedure should I follow?

If wear is to be repaired, the same procedure for the case of recovery or repair of natural or synthetic rubber must be followed, i.e., scrape with a grinder and continue with the application steps.

27. Can I make a hot vulcanization on an area previously repaired with the product?

No. To perform this type of work, the residues of the product on the surface must be removed.

28. Can I apply the product to belts operating at high temperatures?

Yes, the product has been successfully used in cement conveyor belts operating with peaks of 140°C.

29. Can this product be used in coatings or conveyor belts exposed to acid environments?

Yes, this type of product resists well in acid environments. Copper mining industries have successfully applied the product in the recovery of lifters in agglomerate drums.

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