

Devcon® R-Flex™

Description:

Self-levelling liquid urethane that in minutes turns into a non-sag putty for repairing gouges, tears, and holes and coats clips for heavy weight SBR conveyor belt.

Intended Use:

- Repair holes, gouges, and tears in SBR conveyor belt
- Coats hinged or solid plate fastener systems to protect them from damage
- Rebuild worn rubber top ply of SBR belts protecting surface from abrasion and impact from aggregate

Product features:

High adhesion to SBR belts creating "surface pull" to polymer
Self-levelling liquid that develops into a non-sagging putty
Belt back into service in 1 1/2 hours

Typical Physical Properties:

Technical data should be considered representative or typical only and should not be used for specification purposes.

Uncured

Mix Ratio	88 resin: 12 curing agent
Product Characteristics:	Pot-Life: 1 - 4 min/ liquid; 4 - 7 min/ self-levelling non sag gel
Coverage:	709 sq.cm./454 g. @ 6.5 mm

Cured 7 days @ 24° C

% Solids by Volume	94%
Abrasion Resistance	270 mg loss per/1,000 rev
Adhesion @ 24 hours	10.05 N.m. surface rubber pull
Adhesion @ 7 days	15.47 N.m. surface rubber pull
Colour	Black
Coverage/lb.	709 sq.cm./454 g. @ 6.5 mm
Cured Hardness	92 Shore A
Dielectric Strength	350 volts/0.25 mm
Functional Cure	1 1/2 hours
Maximum Elongation	421%
Maximum Operating Temperature	Dry: 82°C; Wet: 48.9°C
Specific Volume	449 cubic centimetres per 454 g
Tear Resistance	44.4 kN.m.
Tensile Strength	10 MPa

TESTS CONDUCTED

Adhesive Tensile Shear ASTM D 1002
 Cured Hardness Shore D ASTM D 2240
 Tensile Strength (Urethanes) ASTM D 412
 Maximum Elongation ASTM D 412
 Dielectric Constant ASTM D 150

Surface Preparation:

Surface Prep: Abrading/Cleaning

1. Clean the belt with Devcon® Surface Cleaner by applying ONLY onto a rag and then cleaning the area. DO NOT POUR directly onto the belt.
2. Attach abrasive wheel to a 100 mm grinder [minimum 10,000 RPM]. Roughen belt releasing contaminants and grit.
3. Using grinder, roughen belt until dull bluish-grey colour. Ensure top layer of belt is roughened, leaving a fine dusting of residue, brush off residue.

NOTE: Be sure not to grind down to the belts woven fabric this will weaken the belt.

4. Take a dry rag and wipe off any ground particles. Making the repair dust free.
5. Repeat Step 4 until no black streaks appear on rag. DO NOT apply any solvent cleaners directly to the belt.
6. Ideal application temperature is above 12.8°C.

Surface Conditioner Mix Instructions (NOTE: Devcon® Surface Conditioner must be used prior to applying Devcon® RFlex™)

- Open bag, remove Surface Conditioner bottles; Part A and Part B.
- Unscrew spout cap from Part B bottle and remove aluminium seal. Screw spout cap back on Part B bottle.
- Take Part A bottle and unscrew dauber top.
- Flip up the spout cap on Part B bottle to pour liquid into Part A bottle. Screw dauber top onto Part A bottle.
- Shake bottle for 30 seconds to mix Surface Conditioner.
- Remove clear cap from dauber top. Turn upside down and press dauber firmly on repair area.
- Thinly spread Surface Conditioner around entire repair area. It will evaporate quickly leaving slight change in colour on surface.

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Mixing Instructions:

- Wait 3 minutes to ensure surface is dry before applying repair compound.

Metal Surfaces

- Thoroughly clean area to be repaired. Remove any oil, grease or dirt. Roughen metal surface by grinding with a coarse wheel. To prime the surface apply a coat of Devcon® FL-10 Primer and allow to dry tack-free for 15 minutes.

R-Flex™ Mix Instructions

- Make sure surface is roughened and surface conditioner was applied over 3 minutes before applying repair compound.
- Remove metal resin can from box - remove can clips and open lid.
- Unscrew cap of curing agent. Pull off aluminium seal.
- Pour curing agent and contents of metal resin into white mix bucket, be sure to scrape resin can to release contents that may stick to sides of can.
- Using wooden paddle, stir contents thoroughly for 2 minutes – scraping sides and bottom of bucket as you stir.
- Pour completely mixed contents onto roughened belt, 3 minutes after applying surface conditioner.
- Spread with spatula over entire desired repair area.

Application Instructions:

Holes:

- For holes, use duct tape underneath belt to bridge hole. Be sure to prime repair area 15-20 cm" back from the hole.
- Follow surface abrading/cleaning section thoroughly.
- After mixing Devcon® R-Flex™ and applying to repair area, make sure you fill void 15-20 cm around the hole to create additional strength.

Gouges or Tears:

- For tears, if the tear is over 20 – 25 cm take alligator clip and lock the tear on either end of the tear to mechanically stop the belt from continuing to rip.
- Take an abrasive wheel 100 mm grinder and at the tear undercut the rubber at an angle in a "V" configuration opening up the tear to expose more surface area for the repair compound to attach to. Place a strip of duct tape underneath the tear sealing off the area so no repair compound leaks through during the repair.
- If using alligator metal clips, coat the clips with Devcon® FL-10 Primer and allow to dry for 3 minutes.
- Follow surface abrading/cleaning section thoroughly.
- After mixing Devcon® R-Flex™ [and applying to repair area, push the material into the "V" opening you created. The material will self-level in that area. Coat the clips with a thin layer of material.

Storage:

Store in a cool dry place.

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75° C

1,1,1-Trichloroethane	Poor	Phosphoric 10%	Fair
Aluminum Sulfate 10%	Very good	Potassium Hydroxide 40%	Very good
Cutting Oil	Fair	Sodium Hydroxide 50%	Very good
Gasoline (Unleaded)	Fair	Sodium Hypochlorite	Very good
Hydrochloric 10%	Very good	Xylene	Poor
Hydrochloric 36%	Very good	Methyl Ethyl Ketone	Poor
Isopropanol	Poor		

Precautions:

Please refer to appropriate material safety data sheet (MSDS) prior to using this product.

**For technical assistance, please call 1800-063-511
FOR INDUSTRIAL USE ONLY**

Warranty:

Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

Disclaimer:

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Polymers & Fluids and Devcon makes no representations or warranties of any kind concerning this data.

Order Information:

**D15550 1.81 kg (4 lb.)
D15565 680 g (1.5 lb.)**

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