Devcon® R-Flex™

Description: Self-leveling liquid urethane that in minutes becomes a non-sag putty for repairing gouges, tears, and holes as well as protecting clips in heavy weight SBR conveyor belts.

Intended Use:
- Repair holes, gouges, and tears in SBR conveyor belt
- Protect Belt Clips and Splices from Scrapers, with pulleys > 10" diameter.

Product features:
High Adhesion to SBR belts creating "surface pull" to polymer
Self-leveling liquid that develops into a non-sag putty
SBR Belt back in service in just 90 minutes

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

Typical Physical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Solids by Volume</td>
<td>94</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>270 mg (H18,1000g,1000rev)</td>
</tr>
<tr>
<td>Adhesion @ 24 hours</td>
<td>65 pli surface pull of rubber</td>
</tr>
<tr>
<td>Adhesion @ 7 days</td>
<td>108 pli surface pull rubber</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Coverage/lb.</td>
<td>110 sq. in./lb. @ 1/4&quot;</td>
</tr>
<tr>
<td>Cure Hardness</td>
<td>87 Shore A</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>350 volts/mils</td>
</tr>
<tr>
<td>Functional Cure</td>
<td>90 minutes</td>
</tr>
<tr>
<td>Maximum Elongation</td>
<td>420%</td>
</tr>
<tr>
<td>Maximum Operating Temperature</td>
<td>Dry: 180°F Wet: 120°F</td>
</tr>
<tr>
<td>Mix Ratio</td>
<td>88:12 (by weight)</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>18 months</td>
</tr>
<tr>
<td>Specific Volume</td>
<td>27.4 in[3]/lb.</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>375 pli</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>1,460 pli</td>
</tr>
</tbody>
</table>

Cured 7 days @ 75°F

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength ASTM D 790</td>
<td>TESTS Conducted</td>
</tr>
<tr>
<td>T-Peel Strength ASTM D 1876</td>
<td></td>
</tr>
<tr>
<td>Tear Resistance ASTM D 624</td>
<td></td>
</tr>
</tbody>
</table>

Uncured

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Characteristics @ 110°F/43°C</td>
<td>Pot Life: 1-3 min semi-liquid; 3-5 min/self level non sag gel</td>
</tr>
<tr>
<td>Product Characteristics @ 73°F/23°C</td>
<td>PotLife: 1-4 min semi-liquid; 4-10 min/self level non sag gel</td>
</tr>
</tbody>
</table>

Surface Preparation:
1. Clean the belt with Devcon® Cleaner Blend 300 by applying ONLY to a rag and then cleaning the area. DO NOT POUR directly onto the belt!
2. Attach abrasive wheel [36 grit] to a 4" grinder [minimum 10,000 RPM]. Roughen belt releasing contaminants and grit.
3. Using grinder, roughen belt until dull bluish-grey color. Ensure top layer of belt is roughened, leaving a fine dusting of residue, brush off residue with a dry rag.
4. Take a dry rag and wipe off any ground particles making the repair dust free.
5. Ideal application temperature is above 50°F (12.8°C).

Mixing Instructions:
1. Locate Surface Conditioner Part A and Surface Conditioner Part B bottles within kit packaging.
2. Unscrew spout cap from Part B bottle and remove aluminium seal. Screw spout cap back on Part B bottle.
3. Take Part A bottle and unscrew dauber top.
4. Flip up the spout cap on Part B bottle to pour liquid into Part A bottle. Screw dauber top onto Part A bottle.
5. Shake bottle for 30 seconds to mix Surface Conditioner.
6. Remove clear cap from dauber top. Turn upside down and press dauber firmly on repair.
7. Thinly spread Surface Conditioner around entire repair area. It will evaporate quickly leaving slight change in color on the surface.
8. Wait 3 minutes to ensure surface is dry before applying Devcon R-Flex™.
R-Flex™ Mix Instructions
1. Make sure surface is roughened and Devcon® Surface Conditioner was applied and you will need to wait at least 3
minutes before applying Devcon R-Flex™.
2. Remove metal resin can [4 lb] kit, or plastic jar [1.5 lb kit] and open lid.
3. Pour Curing Agent from its container [4 lb kit plastic jar, 1.5 lb kit pouch] into the respective mixing container.
>-For the 4 lb. kit pour the curing agent and the contents of the resin into the large white mix bucket. Be sure to
    scrape sides of metal can getting all resin into the bucket.
>-For the 1.5 lb. kit simply pour the curing agent pouch into the plastic resin container and start mixing.
4. Using wooden paddle, stir contents thoroughly for 1.5 minutes- scraping sides and bottom of the containers - to activate
   curing mechanism.
5. Pour mixed R-Flex™onto the roughened belt. After 3 minutes R-Flex will be able to be applied to a vertical surface
   without sagging [@1/4" thick] as the product is polymerizing quickly.
6. Spread with spatula to desired area. R-Flex will continue to "self-level" in seconds up to 8 minutes after you started your
   mixing. After that time the material will not self-level.

Metal Surfaces
1. Thoroughly clean the metal clips/splices. Remove any oil, grease or dirt. Roughen the metal using a grinder with a wire
   brush or coarse wheel, again clean the surface. Prime the surface by applying 1 to 2 coats of Devcon Metal Clip Primer
   and allowing to dry to the touch (5-15 minutes) after each coat.

Application
Instructions:
1. Repairing Holes
   • For holes, use duct tape underneath belt to bridge hole. Be sure to prime repair area 6-8" back from the hole.
   • Follow surface abrading/cleaning section thoroughly.
   • After mixing apply to repair area, make sure you fill void 6-8" around the hole to create additional strength.
2. Gouges or Tears:
   If the tear is over 8-10" take alligator clip and lock the tear on either end to mechanically stop the belt from continuing to
   rip.
   • Take an abrasive wheel 4" grinder and at the tear undercut the rubber at an angle in a “V” configuration to expose more
     surface area for the repair compound to attach to. Place a strip of duct tape underneath the tear to prevent repair
     compound leaking through.
   • If using metal clips, clean with solvent, roughen with a grinder with a wire brush or coarse wheel, clean with solvent
     again. Coat the clips with Devcon® Metal Clip Primer and allow to dry to touch before applying R-Flex.
   • 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.
3. Coating Hinged or Solid Plate Fasteners:
   • When coating plated clips, abrade an 8" area from the clip to the belt on both sides of the clip. If clip was skived and
     below surface only go back 4".
   • Clean the clip with solvent, roughen with a grinder with a wire brush or coarse wheel, clean with solvent again. Coat the
     clip with Devcon® Metal Clip Primer and allow to dry to touch before applying R-Flex.
   • Spread R-Flex™ on clips at a minimum thickness of 1/8" (this helps to bridge the elongation that occurs when belt is
     subjected to pressure of scraper and traveling across pulleys).

Storage:
Store in a cool, dry place.

Compliances:
Adhesion Testing was conducted per ASTM 3167 measuring the polymers adhesion to SBR Rubber.

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>Poor</td>
</tr>
<tr>
<td>Aluminum Sulfate 10%</td>
<td>Very good</td>
</tr>
<tr>
<td>Hydrochloric 10%</td>
<td>Very good</td>
</tr>
<tr>
<td>Hydrochloric 36%</td>
<td>Very good</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>Poor</td>
</tr>
<tr>
<td>Phosphoric 10%</td>
<td>Fair</td>
</tr>
<tr>
<td>Potassium Hydroxide 40%</td>
<td>Very good</td>
</tr>
<tr>
<td>Sodium Hydroxide 50%</td>
<td>Very good</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>Very good</td>
</tr>
</tbody>
</table>

Precautions:
Please refer to the appropriate safety data sheet (SDS) prior to using this product.

For technical assistance, please call 1-855-489-7262

FOR INDUSTRIAL USE ONLY

Warranty:
ITW Performance Polymers 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
Performance Polymers makes no representations or warranties of any kind concerning this data.

Order
Information:
15565  1.5 lb.
15500  4 lb.