Technical Data Sheet

7/19/2019

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:

Typical Physical Properties:

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

Cured 7 days @ 75° F	
% Solids by Volume	94
Abrasion Resistance	270 mg (H18,1000g,1000rev)
Adhesion @ 24 hours	65 pli surface pull of rubber
Adhesion @ 7 days	108 pli surface pull rubber
Color	Black
Coverage/lb.	110 sq. in./lb. @ 1/4"
Cure Hardness	87 Shore A
Dielectric Strength	350 volts/mils
Functional Cure	90 minutes
Maximum Elongation	420%
Maximum Operating Temperature	Dry: 180°F Wet: 120°F
Mix Ratio	88:12 (by weight)
Shelf Life	18 months
Specific Volume	27.4 in[3]/lb.
Tear Resistance	375 pli
Tensile Strength	1,460 pli

Uncured	
Product Characteristics @ 110°F/43°C	Pot Life: 1-3 min semi-liquid; 3-5 min/self level non sag gel
Product Characteristics @73°F/23°C	PotLIfe: 1-4 min semi-liquid; 4-10 min/self level non sag gel

TESTS CONDUCTED

Flexural Strength ASTM D 790
T-Peel Strength ASTM D 1876
Tear Resistance ASTM D 624

Surface Preparation:

Surface Prep: Abrading/Cleaning
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.
NOTE: Be sure not to grind down to the belt's woven carcass as this will weaken the belt.
4.Take a dry rag and wipe off any ground particles making the repair dust free.
NOTE: DO NOT apply any solvent cleaners to the belt as this will close the pores of the SBR Belt an affect adhesion..
5.Ideal application temperature is above 50°F (12.8°C).

Mixing Instructions:

Surface Conditoner Mixing Instructions (NOTE: Devcon Surface Conditioner must be used prior to applying R-Flex)
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 Conditoner was applied and you will need to wait at least 3 minutes before applyng 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 containers.
   >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 saging [@1/4" thick] as the product is polmerizing 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. Use the included brush to apply a coat of Metal Clip Primer to the clips. Allow to dry to the touch (5-15 minutes) before applying a second primer coat (for maximum adhesion), or the R-Flex.

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. Use the included brush to apply a coat of Metal Clip Primer to the clips. Allow to dry to the touch (5-15 minutes) before applying a second primer coat (for maximum adhesion), or the 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. Coat the clips with a thin layer of material.

3. Coating Hinged or Solid Plate Fasteners:

• When coating metal 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. Use the included brush to apply a coat of Metal Clip Primer to the clips. Allow to dry to the touch (5-15 minutes) before applying a second primer coat (for maximum adhesion), or the 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 pullies).

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)

1,1,1-Trichloroethane	Poor
Aluminum Sulfate 10%	Very good
Hydrochloric 10%	Very good
Hydrochloric 36%	Very good
Isopropanol	Poor
Phosphoric 10%	Fair
Potassium Hydroxide 40%	Very good
Sodium Hydroxide 50%	Very good

Sodium Hypochlorite	Very good

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.
15550 4 lb.