Norwesco Industries (1983) Ltd.

Conveyor Lacing - 375

375X Lacing - Sturdy hinged construction makes Hinged fasteners ideal for applications that use smaller pulleys, but still require a high-strength, dependable splice. Belt Thickness 1/4" (0.25") to 13/32" (0.4062") / 6 mm to 11 mm

- Minimum Pulley Diameter 6" / 150 mm

NC Kit = Steel Joint C/W Nylon Covered Steel Cable NCS Kit = Stainless Steel Joint C/W Nylon Covered Stainless Cable SSC Kit = Stainless Joint C/W Bare Stainless Cable

| | | | _ | | _ | | | |
|-------------|-------|-----------|--------|------------|-----------|-------------|--------|---------------|
| Belt | Belt | Ordering | Part | Ordering | Part | Ordering | Part | |
| Width | Width | Number | Number | Number | Number | Number | Number | |
| In. | mm | NC Kit | FLE- | NCS Kit | FLE- | SSC Kit | FLE- | |
| 12" | 300 | 375XJ12NC | 40000 | | | | | |
| 14" | 350 | 375XJ14NC | 40001 | | | | | |
| 16" | 400 | 375XJ16NC | 40002 | | | | | 375XJ Kit |
| 18" | 450 | 375XJ18NC | 40003 | 375XJ18NCS | 40012 | | | |
| 20" | 500 | 375XJ20NC | 40004 | | | | | |
| 24" | 600 | 375XJ24NC | 40005 | 375XJ24NCS | 40013 | 375XSJ24SSC | 40225 | |
| 26" | 650 | 375XJ26NC | 40006 | | | | | |
| 30" | 750 | 375XJ30NC | 40007 | 375XJ30NCS | 40014 | 375XSJ30SSC | 40226 | Children . |
| 36" | 900 | 375XJ36NC | 40008 | 375XJ36NCS | 40015 | 375XSJ36SSC | 40227 | 2000 CT |
| 42" | 1050 | 375XJ42NC | 40009 | 375XJ42NCS | 40016 | 375XSJ42SSC | 40228 | 375X-2 Bulk |
| 48" | 1200 | 375XJ48NC | 40010 | 375XJ48NCS | 40017 | 375XSJ48SSC | 40229 | |
| 60" | 1500 | 375XJ60NC | 39997 | | | 375XSJ60SSC | 39907 | 999 |
| Two-Plate | Steel | 375X-2 | 40100 | 25 Sets | Stainless | 375XS-2STS | 39957 | FLEXCO FLEXCO |
| Fastener | | | | | | | | 20000000 |
| Three-Plate | Steel | 375X-3 | 40101 | 18 Sets | Stainless | 375XS-3STS | 39958 | 275V 2 Pulk |
| Fastener | | | | | | | | 575A-2 BUIK |

J Carton Contents:

2 Strips of fastener, Filler Tubing, 1 Hinge Pin, 1 Gauge Pin, 2 Hinge Pin Washers Required amount of nuts & bolts, Required amount of clips for Individual

Bulk Carton Contents : Fasteners, Bolts and Nuts required for each set, : Ordered Separately - Hinge Pin, Plastic Filler Tube, Aligning Holder

Installation Tools for 375 Lacing

| Description | Ordering | Part | Description | Ordering | Part | 1 |
|--------------|----------|--------|--------------|----------|--------|---|
| Power Tools | Number | Number | Hand Tools | Number | Number | |
| | | FLE- | | | FLE- | |
| Punch | HP1 | 30463 | Punch | P1P | 30460 | 1 |
| Boring Bit | HB1 | 30471 | Boring Bit | B1B | 30468 | |
| Wrench | H100 | 30446 | Wrench | 100 | 30445 | |
| Quick Change | 5552 | 30481 | Quick Change | | | |
| Chuck | | | Chuck | | | |
| Bolt Breaker | 110 | 30474 | Bolt Breaker | 110 | 30474 | |
| (2) | | | (2) | | | |



P1P Punch B1B Boring Bit 100 Wrench

110 Bolt Breaker

5552 Quick Chuck

Installation Tools Curved Templet

| Belt | Belt | Ordering | Part | Belt | Belt | Ordering | Part | - |
|-------|-------|----------|--------|-------|-------|----------|--------|---|
| Width | Width | Number | Number | Width | Width | Number | Number | |
| In. | mm | | FLE- | In. | mm | | FLE- | |
| 12" | 300 | 375X-12 | 30813 | 30" | 750 | 375X-30 | 30820 | |
| 14" | 350 | 375X-14 | 30814 | 36" | 900 | 375X-36 | 30821 | - |
| 16" | 400 | 375X-16 | 30815 | 42" | 1050 | 375X-42 | 30822 | |
| 18" | 450 | 375X-18 | 30816 | 48" | 1200 | 375X-48 | 30823 | |
| 20" | 500 | 375X-20 | 30817 | 54" | 1350 | 375X-54 | 30824 | |
| 24" | 600 | 375X-24 | 30818 | 60" | 1500 | 375X-60 | 30825 | |
| 26" | 650 | 375X-26 | 30819 | 72" | 1800 | 375X-72 | 30826 | |

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| Phone : 403-258-3883 / Fax : 403-259-5823 | Phone : 780-437-5440 / Fax : 780-436-0203 | Phone : 780-743-4446 / Fax : 780-791-5637 |



375X Lacing - Sturdy hinged construction makes Hinged fasteners ideal for applications that use smaller pulleys, but still require a high-strength, dependable splice. Belt Thickness 1/4" (0.25") to 13/32" (0.4062") / 6 mm to 11 mm - Minimum Pulley Diameter 6" / 150 mm

NC Pin = Nylon Covered Steel Cable 1/4"

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|----------------|--------------------------|----------|--|----------------|--------|-------|-------|----------|--------|----------|--------|---------|
| Belt | Belt | Ordering | Part | Ordering | Part | Belt | Belt | Ordering | Part | Ordering | Part | |
| Width | Width | Number | Number | Number | Number | Width | Width | Number | Number | Number | Number | 1 |
| In. | mm | 10 Pack | FLE- | Each | FLE- | In. | mm | 10 Pack | FLE- | Each | FLE- | |
| 12" | 300 | NC-12 | 40150 | NC-12-1 | 38000 | 30" | 750 | NC-30 | 40157 | NC-30-1 | 38007 | |
| 14" | 350 | NC-14 | 40151 | NC-14-1 | 38001 | 36" | 900 | NC-36 | 40158 | NC-36-1 | 38008 | - |
| 16" | 400 | NC-16 | 40152 | NC-16-1 | 38002 | 42" | 1050 | NC-42 | 40159 | NC-42-1 | 38009 | <u></u> |
| 18" | 450 | NC-18 | 40153 | NC-18-1 | 38003 | 48" | 1200 | NC-48 | 40160 | NC-48-1 | 38010 | - |
| 20" | 500 | NC-20 | 40154 | NC-20-1 | 38004 | 54" | 1350 | NC-54 | 40161 | NC-54-1 | 38011 | 2 |
| 24" | 600 | NC-24 | 40155 | NC-24-1 | 38005 | 60" | 1500 | NC-60 | 40162 | NC-60-1 | 38012 | |
| 26" | 650 | NC-26 | 40156 | | | 72" | 1800 | NC-72 | 40163 | NC-72-1 | 38013 | |
| | | • | | | | | | | | | | |

NCS Pin = Nylon Covered Stainless Cable 1/4"

| Belt | Belt | Ordering | Part | Ordering | Part | Belt | Belt | Ordering | Part | Ordering | Part |
|-------|-------|----------|--------|----------|--------|-------|-------|----------|--------|----------|--------|
| Width | Width | Number | Number | Number | Number | Width | Width | Number | Number | Number | Number |
| In. | mm | 10 Pack | FLE- | Each | FLE- | In. | mm | 10 Pack | FLE- | Each | FLE- |
| 12" | 300 | NCS-12 | 40170 | | | 30" | 750 | NCS-30 | 40177 | NCS-30-1 | 38043 |
| 14" | 350 | NCS-14 | 40171 | | | 36" | 900 | NCS-36 | 40178 | NCS-36-1 | 38044 |
| 16" | 400 | NCS-16 | 40172 | | | 42" | 1050 | NCS-42 | 40179 | NCS-42-1 | 38045 |
| 18" | 450 | NCS-18 | 40173 | | | 48" | 1200 | NCS-48 | 40180 | NCS-48-1 | 38046 |
| 20" | 500 | NCS-20 | 40174 | | | 54" | 1350 | NCS-54 | 40181 | NCS-54-1 | 38047 |
| 24" | 600 | NCS-24 | 40175 | NCS-24-1 | 38041 | 60" | 1500 | NCS-60 | 40182 | NCS-60-1 | 38048 |
| 26" | 650 | | | | | 72" | 1800 | NCS-72 | 40183 | NCS-72-1 | 38049 |

NAC Pin = Nylon Covered Armored Cable 1/4"

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| Belt | Belt | Ordering | Part | Ordering | Part | Belt | Belt | Ordering | Part | Ordering | Part |
|-------|-------|----------|--------|----------|--------|-------|-------|----------|--------|----------|--------|
| Width | Width | Number | Number | Number | Number | Width | Width | Number | Number | Number | Number |
| In. | mm | 10 Pack | FLE- | Each | FLE- | In. | mm | 10 Pack | FLE- | Each | FLE- |
| 18" | 450 | NAC-18 | 40629 | NAC-18-1 | 38108 | 42" | 1050 | NAC-42 | 40636 | NAC-42-1 | 38113 |
| 24" | 600 | NAC-24 | 40631 | NAC-24-1 | 38109 | 48" | 1200 | NAC-48 | 40637 | NAC-48-1 | 38114 |
| 26" | 650 | NAC-26 | 40632 | NAC-26-1 | 38110 | 54" | 1350 | NAC-54 | 40638 | NAC-54-1 | 38115 |
| 30" | 750 | NAC-30 | 40633 | NAC-30-1 | 38111 | 60" | 1500 | NAC-60 | 40639 | NAC-60-1 | 38116 |
| 36" | 900 | NAC-36 | 40634 | NAC-36-1 | 38112 | 72" | 1800 | NAC-72 | 40640 | NAC-72-1 | 38117 |

AC Pin = Armored Cable 1/4"



| Belt | Belt | Ordering | Part | Ordering | Part | Belt | Belt | Ordering | Part | Ordering | Part |
|-------|-------|----------|--------|----------|--------|-------|-------|----------|--------|----------|--------|
| Width | Width | Number | Number | Number | Number | Width | Width | Number | Number | Number | Number |
| In. | mm | 10 Pack | FLE- | Each | FLE- | In. | mm | 10 Pack | FLE- | Each | FLE- |
| 18" | 450 | AC-18 | 40685 | AC-18-1 | 38129 | 42" | 1050 | AC-42 | 40691 | AC-42-1 | 38134 |
| 24" | 600 | AC-24 | 40686 | AC-24-1 | 38130 | 48" | 1200 | AC-48 | 40692 | AC-48-1 | 38135 |
| 26" | 650 | AC-26 | 40687 | AC-26-1 | 38131 | 54" | 1350 | | | AC-54-1 | 38136 |
| 30" | 750 | AC-30 | 40688 | AC-30-1 | 38132 | 60" | 1500 | | | AC-60-1 | 38137 |
| 36" | 900 | AC-36 | 40689 | AC-36-1 | 38133 | 72" | 1800 | | | AC-72-1 | 38138 |

Other Cables

SC Pin = Bare Steel Cable 1/4"



SSC Pin = Bare Stainless Steel Cable 7/32"



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Norwesco Industries (1983) Ltd.

Conveyor Lacing - 375

Flexco-Lok Tape - FL7C Belt Tape Width : 7/16" in x 100 ft

Used with fasteners : # 375, 550, 1 & 140 For use with individual Plate Fasteners

| For | Part | Item |
|------------|--------|-------|
| Fastener # | Number | Code |
| 375 | FL7C | 30888 |
| 550 | | |



Plastic filler tubing - is furnished in all "J" cartons, and keeps sifting of fine materials through the hinged

Code

30894

** ** **

joint to a minimum. It is included with every "J" carton and is sold by the 100-foot reel. Used with fasteners : # 375, 550 Item Part

Number

For

Fastener # 375

550



Hinge Pin Retaining Washer - Washers help Avoid hinge-pin migration with easy-to-install retaining washers. 1/4" I.D. For use with 375X and 550 Nylon Coated hinge pins

| For | Part | Item |
|------------|------------|-------|
| Fastener # | Number | Code |
| 375 | 310-RET-50 | 40135 |
| 550 | | |



Extra Piloted Bolts & Nuts

Replacement Bolts & Nuts : Packaged Separately, 100 per box.



Bolts & Nuts Stainless Steel 300 Series

| For | Bolts | Nuts | The seaso |
|------------|-------|-------|-----------|
| Fastener # | SS # | SS | Auto |
| 375 | 20400 | 20381 | |
| 550 | | | ~ 7 |



Bolt Hinged Application Instructions

Square belt end at right angle to center line. Make a concave cut across the belt using a knife & Templet.

Curved Templet 375X or 550 (determined by fastener size & belt width) templet is required to obtain maximum joint strength

Place templet arrow on center line align templet edge with belt edge nail to belt. and using either Power Punch (HP1) or Hand Punch (P1P) punch the bolt holes

Position fastener strip on belt end with "Flexco Hinged" on top. Assemble bolts and nuts, running nuts down by hand. Be sure bolt head engages lug on fastener. If individual plates are to be used, Flex-Lok tape is required.

Using Power Wrench (H100) or Hand Wrench (100)* tighten the nuts at the arrows first, then the remaining nuts. The teeth should penetrate the bottom of the belt. The rubber cover should pucker behind the top of the plates.

Insert the gauge pin into the loops of the fasteners and using a pair of Bolt Breakers (110), break off the bolts. Using a slight rocking motion while keeping the bolt breakers down tight on the nuts will remove the bolts cleanly.

Insert the tubing into the loops of the fasteners. Use the gauge pin to guide the tubing into place. Pullout the gauge pin.

Insert the tubing into the loops of the fasteners. Use the gauge pin to guide the tubing into place. Pullout the gauge pin.

















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Notch trailing edges of all belts 24" and wider.

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Fusion ECRF Cold Bonding Contact Adhesive :

Advantages :

- Offers Quick & Environment Friendly Bonding.
- Free of Chlorinated Hydrocarbons.
- High initial & permanent Adhesion
- Only small amounts are needed
- Easy to process Higher threshold limit values than for Chlorinated Hydrocarbons



Description :

FUSION ECRF cement is a two-component adhesive based on Polychloroprene Rubber in a solvent base that, when Catalyzed with the appropriate amount of Hardener, yields high strength adhesions.

FUSION ECRF is ideal for use in Lining & Lagging Installations, when Bonding Rubber to Steel, Rubber to Fabric, Rubber to Rubber, Rubber to Concrete, Fiberglass, and Urethane.

FUSION ECRF is ideal for Splicing Conveyor Belting, the repair of Steel Cable Belting, and for repairs to existing Rubber Lined Vessels and Rubber Components.

PHYSICAL PROPERTIES OF ECRF CEMENT :

Color – Dark Grey Weight - .704kg (per .8L container) Pot Life – 2.5 Hours @ +70°F (+21.1° C) Working Temperature -10° to +200°F (-23.3° to +93.3° C) Shelf Life – 18 months in cool dark location *Coverage depends on surface texture & preparation. Consistency – brushable Liquid Solvents – mixture of Cyclohexane & Ethyl Acetate Solid Matter – Chloroprene Rubber Oil Resistance – Very Good Coverage – approximately 20 – 24 sq/ft per .8L* 1.858 to 2.323 Sq. Meters

Bond Strengths : Typical Peel Strength

Rubber to Steel 100 lbs. + Rubber to Rubber 80 lbs. + Fabric to Fabric 90 lbs. +

Safety :

Fusion ECRF Cement contains solvents. The inhalation of excessive amounts of vapor may induce an allergic respiratory reaction to sensitized individuals. Avoid skin contact. Wear Protective Clothing, Impervious Rubber Gloves, Filtered Mask & Safety Glasses. (See Page # for Safety Equipment)

In case of skin contact, wash well with soap and water. Spills should be absorbed with absorbent material and water to destroy Isocyanates. When applying Fusion ECRF Cement in confined areas, suction ventilation equipment shall be employed. The equipment should be arranged so that vapors are drawn down and away from the applicator.

Fusion ECRF Cement is flammable. As always the usual fire safety measures should be observed. Keep the cement away from heat, sparks and open flame. Always ground the container when pouring flammable materials so as to avoid static discharge (sparking) which could ignite solvents. Do not allow free fall of more than a few inches when pouring, as dangerous static charges could be generated.

Do not use the cement until the Material Safety Data Sheet & Instructions have been read and understood.

Storage :

Shelf life of unopened containers is 18 months at room temperature. FUSION ECRF cement and hardener should be stored in a cool dark place away from heat, sparks and flame under +70°F (+21.1°C)

If the Cement or Hardener sees temperatures lower than minus -10° F. (-23.3° C) the Chloroprene Rubber Compound & isocyanates will crystallize.

If the Fusion ECRF Cement & Hardener is not warmed up in Cold Temperatures before using, it will reduce the bond strength.

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Fusion Bonding Adhesives Procedures

The key to a successful bonding process lies in the preparation of the Surfaces to be Bonded, The following information details the correct procedures necessary to achieve the optimum results in the use of Fusion CRF & ECRF Industrial Adhesives.

Rubber - without bonding layer

- 1. Clean surface to remove all Contaminates from New or Used Rubber Surface. Clean with Fusion Wiping Cloths dampened with Fusion-Clean solvent. Do not saturate.
- Buff rubber surface with a slow Speed 1200-4000 RPM Buffer using a course (16 24 grit) Fusion Tool buffing wheel or Disc. Keep the tool moving and with light pressure to obtain a uniform buffed surface. Avoid burning or Melting of the surface.
- 3. Remove Buffing Dust / Rubber Crum with a stiff dry Brush followed by a light wipe Fusion Wiping Cloths dampened with Fusion-Clean solvent. Do not saturate.
- 4. Prime surface with Fusion ORF cement using a stiff Brush and a circular scrubbing motion. A scrubbing motion is preferred so that all voids on the Buffed rubber surface to be bonded are filled in. Apply a uniform thin coat of Fusion CRF or ECRF cement and allow to completely dry, 1 hour (overnight is ideal). Protect primed surface from any type of contamination.
- 5. See bonding procedures.

Rubber - with Fusion bonding layer

- Remove the protective plastic cover off the bonding layer (no solvent wiping is needed on fresh bonding layer). If surface is old or contaminated vigorously wipe bonding layer surface with Fusion -Clean dampened Fusion Wiping Cloths to remove all surface contaminates and oxidation off Rubber Surface. Do not saturate Rubber. (over application of solvent to bonding surface, will greatly reduce bond strengths).
- 2. See bonding procedures.

Preparation : Metal

- 1. All surfaces must be clean, dry and free of oil, and other contamination.
- 2. Remove all weld splatter, sharp edges or irregularities in the metal surface by grinding.
- 3. Degrease surface if Contaminated by Oil or Grease Using Fusion Wiping Cloths lightly dampened with Fusion Clean solvent. Do not saturate.
- 4. Steel and other metallic surfaces should be sandblasted to a 4 mil (0.004" or 0.10 mm) profile (SSPCV-SP-5.63 "White Metal Blast Cleaning") to obtain maximum adhesion. Methods such as grinding with a course grit grinding disc or stiff wire brush can be used but bond strengths will be reduced.
- 5. Remove all traces of dust and residue by vacuuming or dry brushing. Take care to avoid contaminating surface during and after cleaning the dust. Finger prints. moisture, oils, etc.
- 6. Clean surface to remove all-contaminates using Fusion Wiping Cloths lightly dampened with Fusion-Clean solvent. Do not saturate.
- 7. Prime surface immediately after sandblasting & cleaning operation with Fusion CRF or ECAF cement or Fusion CP·RM metal primer using a brush or roller.

Surfaces primed with Fusion CRF & ECRF cement should be bonded within 24 hours, surfaces primed With Fusion CP-RM metal primer can wait as long as 7 days. All primed surfaces should be protected from direct sunlight & any type of contamination.

- 8. Primed surface must be completely dry before bonding operation can begin. Fusion CRF & ECRF cement (1 hour) Fusion CP-RM primer (15 minutes).
- 9. See bonding procedures.

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Fusion Bonding Adhesives Procedures

The key to a successful bonding process lies in the preparation of the Surfaces to be Bonded, The following information details the correct procedures necessary to achieve the optimum results in the use of Fusion CRF & ECRF Industrial Adhesives.

Preparation : Fabric to Fabric :

- 1. Using a stiff dry brush clean surface to remove all contaminates. If surface is heavily contaminated use Fusion Wiping Cloths very lightly dampened with Fusion-Clean solvent. Do not saturate Fabric **(over application of solvent to fabric surface, will greatly reduce bond strengths).**
- 2. Do not Buff Rubber from surface of steps unless the fabric is heavily contaminated do not damage fabric by over buffing.
- Remove Buffing Dust / Rubber Crumb with a stiff dry brush.
 (do not apply solvent to buffed fabric surface, as it will greatly reduce bond strengths).
- 4. Prime fabric with Fusion CRF or ECRF cement using a stiff Cement Brush and a circular scrubbing motion to work the cement into the fabric. Apply a uniform coat and allow to dry completely, 1 hour (overnight is ideal).

Some fabrics may require two coats and sometimes three depending on the coarseness of the weave. If two (or three) prime (dry) coats are needed, The second coat can be applied when the first coat has dried.

The second coat should not be scrubbed because the solvent in the cement would attack and lift the thin coat.

This is more evident when the first coat has a short cure time. Protect primed surfaces from any type of contamination including direct sunlight.

5. See bonding Procedures :

Preparation : Special Fabric R.F.L. Coated :

Fabric that is R.F.L. treated should be clean and dry. The number of coats of FUSION ECRF cement will depend on the weight and weave of the fabric. Take special care to insure all indentations are filled (such as heavy conveyor belt fabric).

Under no conditions should the fabric be buffed (sanded) as this will remove the R.F.L. coating and greatly reduce the strength of the fabric.

Preparation : Fiberglass :

The surface should be prepared by sanding and then cleaned with FUSION-CLEAN solvent to help remove abraded particles. Allow the solvent to flash or evaporate. The prepared surface must be primed with FUSION ECRF cement.

The prime coat of cement should be allowed to dry at least 1 hour (overnight is ideal). After allowing the prime coat to dry, proceed with the bonding procedures.

Preparation : Concrete :

The best surface preparation for concrete is sandblasting to provide a clean, dry and sound substrate. When sandblasting is not practical, the surface may be acid etched following the manufacturer's recommendations. After sandblasting or etching, the surface must be primed with FUSION ECRF cement.

For ease of application the prime coat could be roller applied by diluting the FUSION ECRF cement with FUSION-CLEAN solvent, about 50%. This dilution will assure better absorption. The second coat of FUSION ECRF cement must not be diluted for optimum adhesion.

Mixing Instructions :

FUSION ECRF Cement kit is comprised of Cement & Hardener in the ratio of 0.8 liter (1 Qt.) of Cement to 40 gm. (2 oz.) of Hardener. These two components must be **thoroughly mixed**.

The mixed portion should be used within 2.5 hours at +70°F Fahrenheit (+21.1° C Centigrade)

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Bonding Procedures : At This Point All Surfaces Are Considered To Be Primed or Have A Bonding Layer.

- 1. To properly prepared or primed surfaces apply a Tack coat of Fusion CRF or ECRF Cement to each surface at the same time so they dry at the same rate. This should be done as rapidly as possible and taking care to apply a uniform coat with a brush avoiding puddles and uneven coating. Surfaces must Dry Uniformly.
- 2. When using CRF surfaces must dry to a tack, about 3 6 minutes, then they are ready to bond (this tack or bonding time will be about 10 15 minutes),

if the surfaces become too dry, Apply another tack coat to each surface. Test the cement with the back of a dry finger, it should feel tacky but not leave any cement on the finger. **Surfaces Must Be Tacky When Bonded.**

When using ECRF apply one thin coat to primed metal surface and allow to dry a minimum of 30 minutes at room temperate. Apply a second coat of ECRF to the metal surface and one coat to the bonding layer side of the sheet rubber and allow to dry a minimum of 10 minutes (bonding time Will be up to 30 minutes). **Surfaces Must Not be Tacky when Bonded.**

 Join the rubber sheet and the Metal surface (or Rubber to Rubber) and apply pressure using a hand stitcher and/or rubber mallet, starting at the centre and working outwards. On conveyor belt splices a Double Acting Roller must be used.

Rubber to Rubber (Re: ECRF Cement)

Bonding

As stated above, when applying the Fusion ECRF Cement to the material to be bonded, a scrubbing motion is preferred as any voids remaining on the buffed surface are filled in by this action. Also, upon applying the initial coating of Fusion ECRF Cement to the material, it should be allowed to dry for a minimum of 1 hour, overnight is preferred.

Once this initial coat has dried, a second coat shall then be applied. This second coat shall be brushed onto the first coat. It must not be scrubbed in as this would cause the second coat to attack and lift the first coating of cement. This is more apt to happen when the initial coat has had a shorter drying time.

Note:

Care must be taken when applying either the first or second layers of cement to the prepared surface. It is essential that a uniform coating of cement is applied as an uneven coating or puddles that remain on the surface of the material will adversely affect the bonding process.

Once the Fusion ECRF Cement has been allowed to dry completely (surfaces must not be tacky when bonded) join the surfaces together and apply pressure by use of a hand stitcher and/or rubber mallet. This procedure should commence from the center of the bonded materials and working outwards from there in each direction.

Surface Preparation & Application Methods Rubber to Steel

After sandblasting the metal surfaces should be cleaned with FUSION-CLEAN solvent. The metal surface should then have FUSION METAL PRIMER applied. Take special care to insure all directions on the container are followed. Before proceeding with the bonding procedures allow the metal primer to dry completely (at least 15 minutes).

Apply the FUSION ECRF cement to the primed surface. Take special care to insure all directions on the container are <u>followed</u>. For ease of application the FUSION ECRF cement can be roller applied.

On some high profile metal surfaces a roller will not work. A brush application will help insure that the entire metal surface is covered by FUSION METAL PRIMER and FUSION ECRF.

Rubber to Rubber :

The applicator should use a scrubbing-like motion when applying the first coat of FUSION ECRF cement. The scrubbing motion helps to insure that all voids on the buffed surface to be bonded are filled in. Allow the prime coat to dry for 1 hour and then proceed with the bonding procedures.

Bonding :

When applying the first coat of FUSION ECRF cement a scrubbing motion is preferred so that all voids on the surface to be bonded are filled in. The first coat of cement should be allowed to dry at least 1 hour. Maximum drying time for the first coat should not exceed 48 hours. The second coat of FUSION ECRF should not be scrubbed because the solvent in the cement will attack and lift the first coat.

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This is more evident when the first coat has a shorter drying time. To the properly primed metal surfaces apply one coat of FUSION ECRF and allow to dry for a minimum of 30 minutes at room temperature. Apply a second coat of FUSION ECRF cement to the metal surface and one coat to the bonding layer side of the sheet rubber and allow to dry a minimum of **10 minutes** (bonding time will be up to 30 minutes).

When applying the cement care should be taken to apply a uniform coat avoiding puddles and uneven coating. SURFACES MUST <u>NOT</u> BE TACKY WHEN BONDED. Note: If sheet rubber with no bonding layer is used, a prime coat of FUSION ECRF cement is to be applied and let dry for a minimum of 30 minutes at room temperature. Then apply the second coat as per the above instructions.

Join the rubber sheet and metal surface (or rubber to rubber) and apply pressure using a hand stitcher and / or rubber mallet, starting at the center and working outwards. On conveyor belt splices a FUSION DOUBLE ACTING ROLLER **<u>MUST</u>** be applied. Bond Evaluation

Fusion ECRF is capable of bonding rubber to steel in the range of 80-140 lbs. peel per inch width. Bond strengths of fabric to fabric, such as fabric conveyor belting develops over 500-700 lbs. in shear. Optimum adhesion is obtained after 24 hours.

Typical Tools Required For Cold Bonding :

| makta | | | Fulston Systems RC Herst | >>> |
|-----------------------------|------------------|---------------|--------------------------------|---------------------|
| Grinder 7" Disk : | Grinding Disks : | Hand Broom : | Solvent : | Paint Brushes : |
| Variable Speed : 0-3000 RPM | Grit 16 to 24 | Stiff Bristle | Fusion Clean or | Stiff Bristles Wood |
| Power : 10 AMPS / 120 Volt | Aluminum Oxide | | Compatible Solvent | Handle |

| HHAR BRAN | | R | | 211 |
|--------------------|-----------------|--------------------|-----------------------|---------------|
| Mixing Pail : | Rags : | Mallet : | Rollers & Stitchers : | Knife : |
| Solvent Resistant | Lint Free White | Rubber Non-Marking | Steel or Rubber | Olfa L1 or L2 |
| ie. Polypropylene. | | If Possible. | | |

Typical Safety Equipment for Cold Bonding :

| Half Mask : | Filter Cartridge : | Gloves : | Safety Glasses : | Gloves : |
|----------------|-----------------------|-----------------|------------------|---------------------|
| 3M 6000 Series | 3M Multi Gas / Vapour | Rubber Nitrile. | Clear or Amber. | Watson 353 Cut |
| or Equal. | # 60926 | or Equal. | | Resistant or Equal. |

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