

# ***Telepak Industries***

*Splice & Seal™*

## **TELEPAK SPLICE KITS- TPIKRU-A**

**SIZE A: 25-200 PAIR, 26-22 AWG  
FORCED ENCAPSULATED SPLICE**

This system has proven itself over many years of success in major Telco's. Splice & Seal™ was designed to reduce overall cost and incorporate labor saving methods and materials. It can be used on Filled or Air Core Pic Cable, either Direct Buried, Aerial or Underground in various splice configurations.

### **SPECIFICATIONS KIT A:**

SPLICE OPENING	12"
MODULE BANK	SINGLE
SPLICE CONFIGURATION	INLINE/FOLDBACK
SPLICE BUNDLE DIAMETER	3.0+/- ENCAPSULANT 750 gm +/-

### **CONTENTS:**

TPI220-SS  
TPI-12010  
TPISEM-18A  
TPISW-10  
TPIPT-97  
TPICW-30  
TPICT-14W  
TPICT-9N  
TPIET-10  
TPIBC-2  
TPI-BB15  
TPISRT-2500  
TPIEC-05  
TPIBS-30  
TPIE-75  
TPIF-10  
TPI-W  
INSTRUCTION SHEET

Sealant Strips  
Sleeving Material 12" x 24"  
Splice Envelope, Adhesive  
Spacer Web 10" x 15"  
Pressure Tape  
Clear Wrap 3 Mil  
Cable Tie, Wide 14"  
Cable Tie, Narrow 9"  
End Tape  
Bond Clamps  
Bond bar/Splice Support  
Strain Relief Tape, 4'  
Emery Cloth, 10"  
Bond Strap 30"  
Encapsulant  
Funnel  
Wipe

### **ENCLOSED**

10 FT.  
1 RL.  
18" x 24"  
1 RL.  
1 RL.  
1 RL.  
25 EA.  
6 EA.  
1 RL.  
2 EA.  
1 EA.  
1 RL.  
2 RLS.  
1 RL.  
750 GMS.  
1 EA.  
1 EA.  
1 EA.



***Telepak Industries***

1505 Northwest 30<sup>th</sup> Street  
Faribault, Minnesota 55021

(PH) 507-332-0012 (FAX) 507-334-5895

# ***TPI*** **Telepak Industries**

## *Splice & Seal™*

### **TPI KRU-(A,B,C,D) Forced Encapsulated Splice Kits A, B, C, D Sizes Installation Instructions**

#### **Installation Steps:**

#### **1) Open cables according to kit size (A=12", B=20", C=20", D=20") being installed.**

- a. Remove as much filling compound as possible
- b. Remove all dirt and grease from cable sheath. 8" each side of opening with approved cable cleaner or wipe provided with kit. **DO NOT** card sheath.

#### **2) Install ridged Bond/Support Bar and shield bonds.**

- a. Cut tabs and install 4462 SN Bond Clamps, prior to tightening Bond Clamps, adjust to fit Bond/Support Bar.

Figure 1

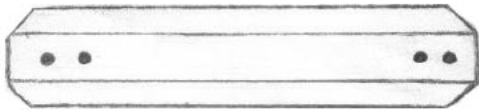


Figure 2

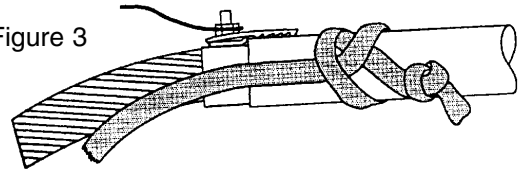


- b. Cut off any protruding bond studs and file flush with top of nut removing any sharp edges.
- c. Place Cable Tie over Bond/Support Bar at studs. Tighten securely.

#### **3) Branch Splices**

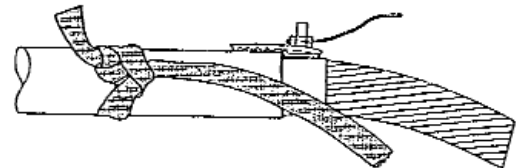
- a. Require additional Strain Relief on branch cables added, one or two. Strain Relief Kits ordered separately, TPISR-Kit.
- b. Behind Bond Clamp on Branch Cable, tie an overhand knot at one end of Strain Relief tape. Tie second knot around cable; tighten tape around cable until knots come together.

Figure 3



- c. Stretch Strain Relief tape across splice and repeat process on opposing cable.
- d. **Important: insure Strain Relief tape is taut across splice opening.**
- e. With abrasive side down, tightly wrap 1 1/4 turns of Emery Cloth over Strain Relief tape, right in front of knot. Repeat on other end of cable, check again to see Strain relief tape remains taut across splice.
- f. Place 3 tight half-lapped layers of End Tape over Emery Cloth and two heavy duty Cable Ties over taped Emery Cloth, use a cable tie tightening tool to install ties very tight, cut and remove tails.

Figure 4

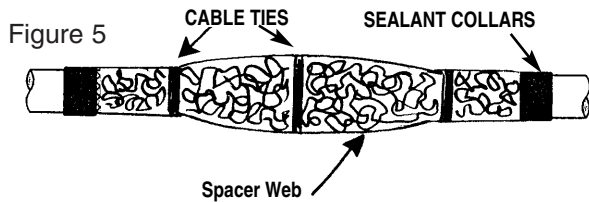


#### **NOTE:**

**Strain Relief tape can be used in lieu of the Bond/Support Bar on all cables for pullout. Replace Bond/Support Bar with No. 6 equivalent bond harness.**

#### **4) Install Spacer Web**

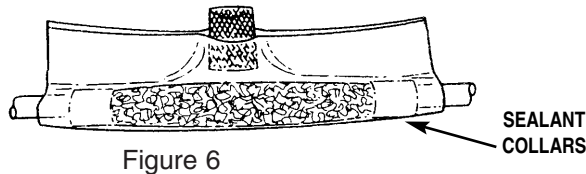
- a. Wrap a single layer of Spacer Web over entire splice bundle, hold in place with narrow Cable Ties (Kits A, B) or End Tape (Kits C, D).



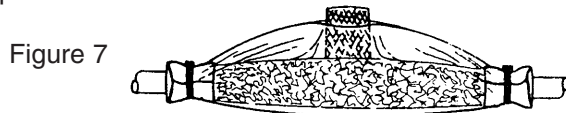
**NOTE: DO NOT cut ties; fold over splice and tape down. Sharp edges could puncture encapsulant envelope.**

## 5) Install Splice Envelope Material, Adhesive Back

- Install a minimum 2-layer collar of Sealant Strips just outside bond clamps (Kits A, B), and up to 4 plus layers with Kits C and D.
- Cut Splice Envelope Material even with outer edges of Sealant Strips with enough envelope extending approximately 4"-6" above splice bundle and adhesive side facing splice
- \*The Splice Envelope Release Liner is perforated in three equal sections for ease of removal and installation. Peel back the center section first and tack liner to the very bottom of the splice bundle.
- \*Remove the remaining two pieces of liner and proceed to form the encapsulant pouch.



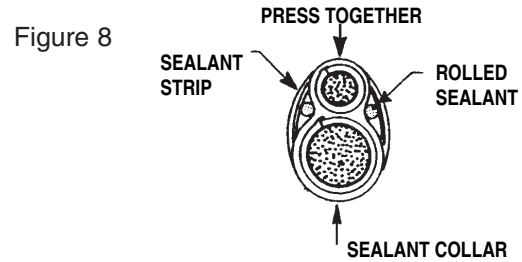
- Press adhesive sides together around collars leaving opening at the top for the funnel. (Figure 6)
- Install 2 Wide Cable Ties over each collar. Tighten to slightly compress Sealant ensuring a leak proof envelope.
- \*Place Funnel for pouring encapsulant into the splice on the top of envelope. After filling envelope with encapsulant at least 3/4 of the way up on splice bundle, remove Funnel and make a seal across top and fold envelope over itself down onto splice bundle.



## 5A) Install Splice Envelope for Branch Cable Installations

- Place corresponding layers of Sealant Strips just outside bond clamps, directly in line with main cables.
- Press collars together firmly.
- Cut and roll 2" Sealant Strips and press in between collars on each side.

- Wrap a single layer of Sealant around entire collar containing both branch collars.
- Squeeze and form sealant as circular as possible.



- Install Sealant Strip Material on single end and continue with step 5 b-h.

## 6) Install Clear Wrap

- Wrap at least 4 half-lapped layers of Clear Wrap over encapsulated splice bundle, increasing tension on each layer to keep encapsulant under continuous pressure.

**CAUTION: Watch for leaks or seepage of encapsulant. If any is present, add additional Clear Wrap to stem any flow of compound from bundle. Also, look for any air bubbles, puncture through Splice Envelope to release any trapped air, seal with additional Clear Wrap.**

- Over Clear Wrap, add one half-lapped layer of Pressure Tape. Pressure tape will hold compression of Clear Wrap until encapsulant is cured.

## 7) Install TPIS Sleeving Material

- Just outside wrapped splice/inner collars, place a minimum 2-layers of Sealant Strips (Kits A, B), and up to 4 plus layers with Kits C and D. After installing Collar, wrap a single half-lapped layer of Sealant Strip, starting just outside Collar, extending up over collar and onto splice bundle at least two inches on size A and B. On sizes C and D extend Sealant four inches.

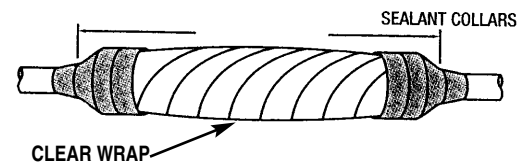
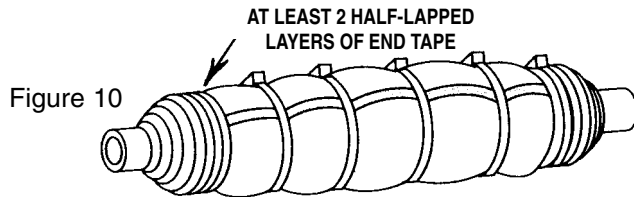


Figure 9

- Measure and cut a piece of Sleeving Material extending to outside edge of Sealant Collars and over lapping itself at least 1 1/2".

- c. Two pieces of Sleeving Material can be used still maintaining 1 1/2" overlap, see step 7A. This procedure will make a more appealing splice, causing less slack in the sleeving and not as much "bunch up."
- d. Install Sleeving keeping under tension while forming smoothly around splice bundle.
- e. Tape ends of Sleeving tightly with End Tape out onto cable sheath.
- f. Over Sleeving, place and hand tighten Wide Cable Ties, spaced to match circular marks on Sleeving or approximately 2" apart. Tighten to cause 1/8" to 1/4" compression of Sleeving.

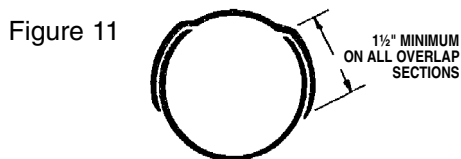


- g. End Tape can be applied to ends to Sleeving Material out onto cable sheath.
- h. Completed splices can be immediately direct buried and backfilled. Splice should be supported according to local practices.

**NOTE: Increase size of Sealant Strip Collars proportional to the size of the overall splice bundle. This will aid in placing sleeving and reduce "buckling" of the sleeving material.**

#### **7A) Multiple Sleeve Installations, less "Buckling Effect" of Sleeving Material-Saddle Method (Optional on Kits A and B, Highly recommended on Kits C and D)**

- a. Measure the largest circumference of the splice. The sleeve sizes must be selected so that the sleeve will overlap each other by at least 1 1/2". With two sleeves, combined sleeves width = largest circumference = 3".



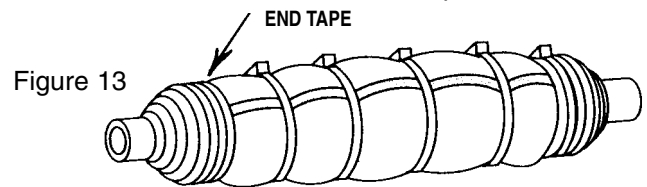
- b. Measure the length of the wrapped area and add 6". Cut the sleeves to this length. Clean sheath with approved wipe, or cleaner provided with kit. **DO NOT CARD.**
- c. Remove release liner from the larger sleeve and center it over the wrapped area at the bottom of the splice. The sleeve must extend to the end of each Sealant Collar.
- d. In both steps 7 and 7A, Sleeving Material can be stretched to better conform to encapsulated splice bundle with Kits C and D.

**NOTE: When using this method on cable bends, place the first sleeve on the inner side on bend.**

- e. Tuck the sleeve to the splice along the centerline of the splice and around the largest circumference.
- f. Hold the center section of the sleeve beginning on either side of the point of the largest splice circumference; stretch the first edge out from the center and around the splice, then the other edge. Repeat on the other side. Press the sleeve firmly onto the splice. See figure 12.



- g. Remove release liner from second piece of Sleeving and center it over the wrapped area at the top of splice. Wrap it around the splice in the same manner as described in step 7.



#### **8) Re-Entry**

- a) Remove all cable ties.
- b. Remove Sleeving by cutting and or unwrapping. Insure cut does not cause conductor damage or create gouges in the cable sheath.
- c. Discard Sleeving Material, **DO NOT** reuse.
- d. Remove all Sealant and tapes.

#### **9) Re-install new kit following initial procedures starting at Step 1, cleaning sheath.**

**TELEPAK Industries**

1505 Northwest 30th Street  
Faribault, Minnesota 55021  
(PH) 800-324-3314 • (Fax) 507-334-5895

## NOTES:

Remember!  
There is no job so important  
that we cannot take the time  
to perform our work  
**SAFELY!**



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