

APPLICATION PROCEDURE
& SAFETY CONSIDERATIONS
PREFORMED LINE PRODUCTS



JANUARY 2001

**FIBERLIGN® Repair Rods
for Optical Ground Wire (OPGW)**

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED™ product before application.

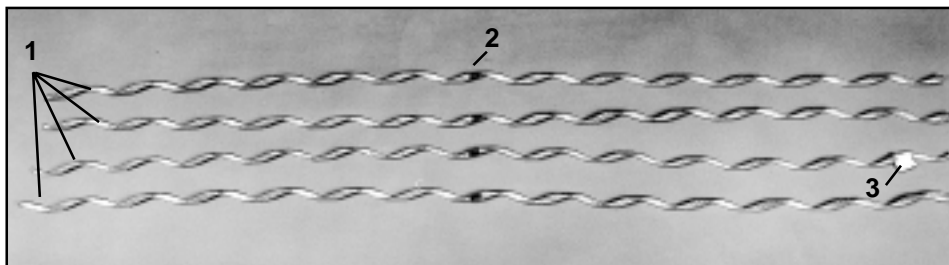


FIGURE 1 - NOMENCLATURE

1.00 NOMENCLATURE

1. Subset
2. Center Mark and Color Code
3. Identification Tape

2.00 DESCRIPTION

2.01 FIBERLIGN Repair Rods are designed as a single component, outer layer assembly for use on Optical Ground Wire (OPGW) and are intended for repair of the outer mechanical strand members on an OPGW cable. **This is not an optical repair product.**

2.02 The Repair Rods are not designed nor tested for use on all-metal overhead shield wires and are not intended for that application.

2.03 Resorative-Repair: Repair Rods will provide varying levels of mechanical and electrical repair depending upon the specific construction, stranding and material of the OPGW. The extent of mechanical damage that the product can repair for a single layer of OPGW is up to 50% of the cable rated strength. The 50% rating is established by PLP® based on repair rod performance. Contact the OPGW cable manufacturer to verify the extent of damage that the specific cable design can survive without jeopardizing the performance of the fiber optic elements. If the cable manufacturer limits the repair level to less than 50%, limit the use of the repair rod to the lower level for that specific cable. Consult PLP for further details.

2.04 Lay Direction: Lay direction of the Repair Rods should be the same as the outer strands of the OPGW. Left-hand lay is standard, consult PLP for right-hand lay designs.

3.00 APPLICATION OF REPAIR RODS

3.01 Locate the area of damage on the OPGW to properly position the Repair Rods. Each Repair Rod subset has a color code placed at the center. Each subset color code must be centered in the damaged area on the OPGW. This localized area of damage should be confined within an 8" (200 mm) length under the repair rods. (Figure 2)

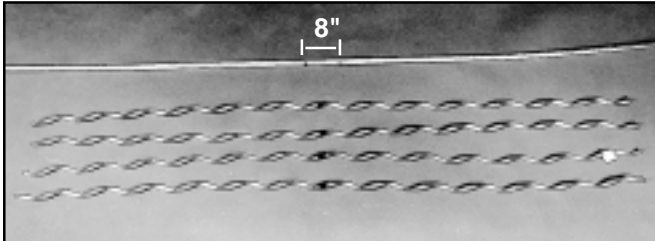


FIGURE 2 - CENTER COLOR CODES WITHIN AN EIGHT INCH AREA

3.02 Cleaning the OPGW and applying inhibitor are required in the area covered by the length of the Repair Rods. Carefully wire brush the outer layer of OPGW until bright and clean – DO NOT DAMAGE the inner layer of fiber buffer tubes during the cleaning process. A quality inhibitor must be applied to retard oxidation.

3.03 Align the color code of one Repair Rod subset at the center of the damaged area and hold the subset securely with thumb and finger pressure against the OPGW.

NOTE: If each subset does not have the same quantity of rods, start with subset containing the greatest number of rods.

Begin wrapping the first subset around the OPGW from the center out in one direction and then snap rod ends in place. (Figure 3A) Complete application by wrapping the unapplied half of the subset around the OPGW and snapping rod ends in place. (Figure 3B)

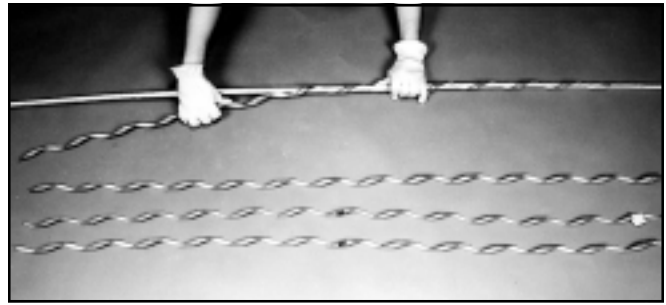


FIGURE 3A - WRAP FIRST SUBSET AROUND OPGW

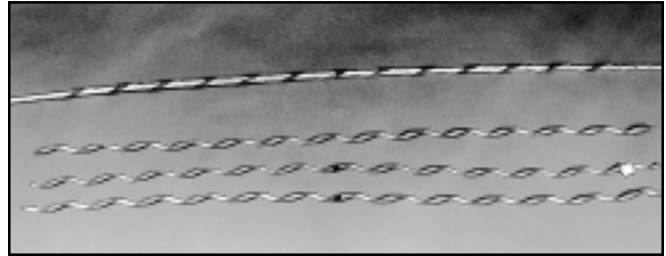


FIGURE 3B - APPLICATION OF FIRST SUBSET

3.04 Match the color mark of the first subset and apply the second subset one or two pitch lengths on each side of center. (Figure 4)



FIGURE 4 - APPLY ONE TO TWO PITCH LENGTHS OF SECOND SUBSET

3.05 Apply the subsequent subsets in the same manner, then wrap on remaining subsets simultaneously to within one or two pitch lengths of completion. (Figure 5)



FIGURE 5 - PARTIALLY APPLY SUBSEQUENT SUBSETS

3.06 For ease of application, split the legs of the remaining subsets as shown. (Figure 6) Wrap each split end around the OPGW separately, and apply thumb pressure until it snaps into place.



FIGURE 6 - SPLIT LEGS OF FINAL SUBSET

3.07 Application of the FIBERLIGN Repair Rods is completed.

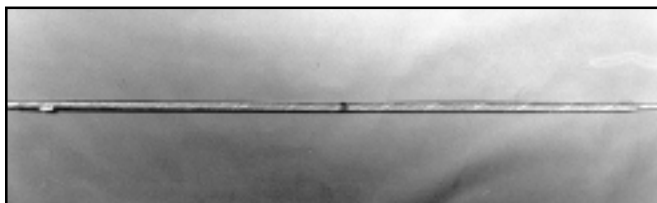


FIGURE 7 - COMPLETED APPLICATION

SAFETY CONSIDERATIONS

1. This Application Procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. **CAUTION: FAILURE TO FOLLOW THESE PROCEDURES AND RESTRICTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.**
2. This product is intended for the single (one-time) use and for the specified application. **CAUTION: DO NOT REUSE OR MODIFY THIS PRODUCT UNDER ANY CIRCUMSTANCES.**
3. This product is intended for use by trained craftspeople only. This product **SHOULD NOT BE USED** by anyone who is not familiar with and trained in the use of it.
4. When working in the area of energized lines with this product, **EXTRA CARE** should be taken to prevent accidental electrical contact.
5. For **PROPER PERFORMANCE AND PERSONAL SAFETY** be sure to select the proper size FIBERLIGN Repair Rods before application.
6. FIBERLIGN Repair Rods are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.

PREFORMED LINE PRODUCTS 

P.O. Box 91129, Cleveland, Ohio 44101 • 440.461.5200 • www.preformed.com • e-mail: inquiries@preformed.com

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