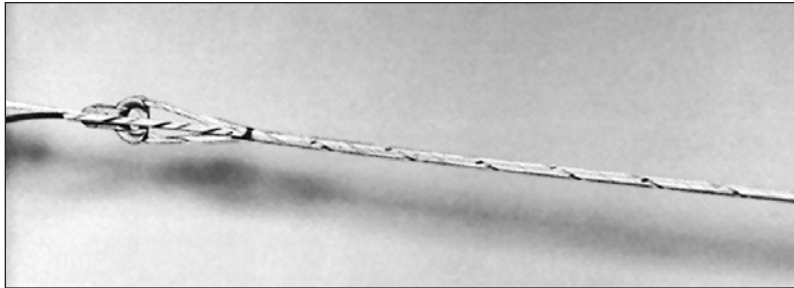
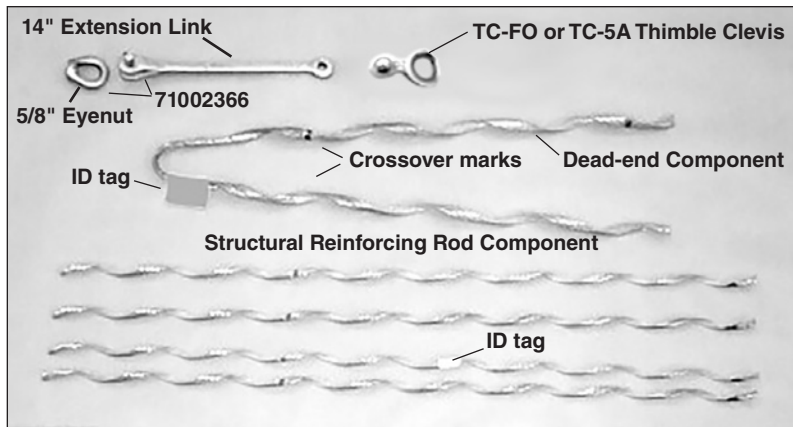


FIBERLIGN® Dielectric Dead-end for ADSS



FIBERLIGN Dielectric Dead-end installed

NOMENCLATURE



GENERAL INFORMATION

The FIBERLIGN Dielectric Dead-end product line has been designed to securely but gently terminate All Dielectric Self-Supporting (ADSS) aerial fiber optic cable. A two component design consisting of appropriate size and length of Structural Reinforcing Rods and Dead-end component is required to transfer axial tensile loads and distribute radial compressive forces through the plastic jacket and onto the internal strength members without damaging the fragile plastic jacket or internal optical fibers.

APPLICATION & PRODUCT SELECTION

Specific Dead-end design and performance depends upon a number of factors such as cable brand and design, strength member construction, jacket type, tension load requirements, temperature and environmental operating conditions, and so on. Due to these factors, three types of Dead-ends are offered:

- Limited Tension Dielectric Dead-ends
- Medium Tension Dielectric Dead-ends
- High Tension Dielectric Dead-ends

Limited Tension Dead-ends:

Intended for relatively low tension application usually associated with short span construction. They are not cable or line design specific but are designed to fit broad diameter ranges. Holding performance will vary by specific cable brand and operating conditions. Therefore, no specific holding strength rating is possible.

In general, Limited Tension Dead-ends are intended for use with these conditions and limitations:

- Low tensions, approximately:
 - 1,000# (4.4kN) maximum initial (stringing/nominal axial/long-term) tension
 - 2,500# (11.1 kN) maximum loaded (working/loaded axial/short-term) tension
- Short spans:
 - 300' - 600' (91-183 m) typical maximum spans depending upon cable OD and tensions
 - not recommended for critical crossing spans (highways, rivers, etc.); see Medium or High Tension Dead-ends
- Low strength cables
- "Standard" jackets
- Most cable brands
- No excessive operating conditions, cable motion or high temperatures



FIBERLIGN® Dielectric Dead-end for ADSS

APPLICATION & PRODUCT SELECTION (cont.)

Limited Tension Dead-end features:

- Standard design parameters
- Broad cable OD ranges, listed on ID tags
- Short Structural Reinforcing Rods
- Short dead-end component
- Structural Reinforcing Rods and Dead-end components packaged in same carton
- Fast, easy installation
- Utilizes economical TC-FO Thimble Clevis

| Limited Tension Dead-ends | | | | |
|---------------------------|-------------------------|-----------------------|------------------------|------------|
| Catalog Number* | Cable O.D. Range (inch) | Cable O.D. Range (mm) | Overall Length in. (m) | Color Code |
| 2872001 | .400-.424 | 10.1-10.7 | 48 (1.2) | Black |
| 2872002 | .425-.451 | 10.7-11.4 | 48 (1.2) | Yellow |
| 2872003 | .452-.481 | 11.4-12.2 | 48 (1.2) | Green |
| 2872004 | .482-.510 | 12.2-12.9 | 48 (1.2) | Orange |
| 2872005 | .511-.542 | 12.9-13.7 | 48 (1.2) | Blue |
| 2872006 | .543-.577 | 13.7-14.6 | 48 (1.2) | White |
| 2872007 | .578-.613 | 14.6-15.5 | 48 (1.2) | Red |
| 2872008 | .614-.651 | 15.5-16.5 | 48 (1.2) | Black |
| 2872009 | .652-.692 | 16.6-17.5 | 48 (1.2) | Yellow |
| 2872010 | .693-.737 | 17.5-18.7 | 48 (1.2) | Green |
| 2872011 | .738-.784 | 18.7-19.9 | 48 (1.2) | Orange |
| 2872012 | .785-.834 | 19.9-21.1 | 48 (1.2) | Blue |
| 2872013 | .835-.889 | 21.2-21.5 | 48 (1.2) | White |
| 2872014 | .890-.945 | 22.6-24.0 | 48 (1.2) | Red |
| 2872015 | .946-1.007 | 24.0-25.5 | 48 (1.2) | Black |
| 2872016 | 1.008-1.073 | 25.6-27.2 | 60 (1.5) | Yellow |
| 2872017 | 1.074-1.140 | 27.2-28.9 | 60 (1.5) | Green |
| 2872018 | 1.141-1.212 | 28.9-30.7 | 60 (1.5) | Orange |
| 2872019 | 1.213-1.288 | 30.8-32.5 | 60 (1.5) | Blue |

*To include accessories in same carton, add suffix code(s) to Dead-end catalog number. Example: Cat. No. 2872001C1E1 includes Dead-end #2872001, TC-FO Thimble Clevis and Extension Link #71002366 in the same carton. See Dielectric Dead-end accessories in this section.

CAUTION: Some ADSS cables are not suitable for use with Limited Tension Dead-ends. Limited Tension Dead-ends are not recommended for track-resistant jacket applications. Consult PLP for specifics.

Medium Tension Dead-ends:

Designed for medium tension applications. Holding performance will vary by specific cable brand and operating conditions; therefore no, specific holding rating is possible.

In general, Medium Tension Dead-ends are intended for use with these conditions:

- Moderate tensions, approximately
 - 2,000# (8.9 kN) maximum initial (everyday/stringing) tension
 - 4,000# (17.8 kN) maximum loaded (short-term/working) tension maximum span length is dependent on cable O.D. and tensions
- For “standard” and most “track-resistant” jacket types of ADSS cables. (Contact PLP to verify acceptable track-resistant cable.)
- For severe operating temperatures and conditions
- Structural Reinforcing Rod length ranges from 85" to 105" (2.2 m - 2.7 m)

Medium Tension Dead-end features:

- Standard design parameters
- Broad cable OD ranges, listed on ID tags
- Moderate length
- Structural Reinforcing Rods and Dead-end components packaged in same carton
- Utilize TC-FO (or TC-6F) Thimble Clevis
- Accessories can be ordered with Dead-end components using suffix codes

| Medium Tension Dead-ends | | | | |
|--------------------------|-------------------------|-----------------------|------------------------|------------|
| Catalog Number | Cable O.D. Range (inch) | Cable O.D. Range (mm) | Overall Length in. (m) | Color Code |
| 2872098 | .432-.451 | 11.0-11.5 | 85 (2.2) | Black |
| 2872099 | .452-.481 | 11.5-12.2 | 85 (2.2) | Green |
| 2872100 | .482-.510 | 12.2-12.9 | 85 (2.2) | Orange |
| 2872101 | .511-.542 | 12.9-13.7 | 85 (2.2) | Blue |
| 2872102 | .543-.577 | 13.7-14.6 | 85 (2.2) | White |
| 2872103 | .578-.613 | 14.6-15.5 | 85 (2.2) | Red |
| 2872104 | .614-.651 | 15.5-16.5 | 85 (2.2) | Black |
| 2872105 | .652-.692 | 16.5-17.5 | 85 (2.2) | Yellow |
| 2872106 | .693-.737 | 17.6-18.7 | 85 (2.2) | Green |
| 2872107 | .738-.784 | 18.7-19.9 | 85 (2.2) | Orange |
| 2872108 | .785-.834 | 19.9-21.1 | 90 (2.3) | Blue |
| 2872109 | .835-.889 | 21.2-22.5 | 90 (2.3) | White |
| 2872110 | .890-.945 | 22.6-24.0 | 95 (2.4) | Red |
| 2872111 | .946-1.007 | 24.0-25.5 | 95 (2.4) | Black |
| 2872112 | 1.008-1.073 | 25.6-27.2 | 97 (2.5) | Purple |
| 2872113 | 1.074-1.140 | 27.2-28.9 | 100 (2.5) | Pink |
| 2872114 | 1.141-1.212 | 28.9-30.7 | 103 (2.6) | Brown |
| 2872115 | 1.213-1.288 | 30.8-32.5 | 105 (2.7) | Orange |

*To include accessories in same carton, add suffix code(s) to Dead-end catalog number. Example: Cat. No. 287102C1E1 includes Dead-end 2872102, TC-FO Thimble Clevis in same carton.

FIBERLIGN® Dielectric Dead-end for ADSS

High Tension Dead-ends:

Custom designed and manufactured for more stringent holding requirements and operating conditions than Limited and Medium Tension Dead-ends. Holding performance will vary depending upon the specific cable brand and operating conditions, therefore no general holding strength rating is possible. Consult PLP® for the proper dead-end application.

In general, High Tension Dead-ends are intended for use with these conditions:

- High tensions, approximately
 - over 2,000# (8.9 kN) initial (everyday/stringing) tension
 - over 4,000# (17.8 kN) loaded tension
- Long spans – varies according to cable OD and tensions
- High strength circular cables
- “Standard” and “track resistant” jackets
- All cable brands
- Selection and design considers excessive operating conditions, cable motion and high temperature environments

High Tension Dead-end features:

- Custom design parameters
- Designed for specific cable diameter and OD ranges, listed on ID tags
- Custom length Structural Reinforcing Rods and Dead-ends to match tension applications
- Structural Reinforcing Rods and Dead-end components packaged in same carton
- Utilizes either ATC-20M and TC-6F Thimble Clevis
- Accessories can be ordered with Dead-end components using suffix codes

Figure 8 Fiber Optic Cable:

For All-Dielectric messengers, the messenger with jacket intact is separated from the fiber bundle and a two piece Dielectric Dead-end is applied over the jacketed messenger. For metallic messengers, a conventional strand dead-end is applied directly to the bare messenger. Consult PLP for specifics for either style messenger.

Component Reuse:

Once installed, the structural reinforcing rods and formed dead-end components may be removed and reinstalled once for repositioning purposes; do not reuse after this initial installation. The hardware may be reused as desired if in good condition. Do not modify any component.

Ordering Instructions:

For Limited Tension and Medium Tension Dead-ends, use the appropriate table in this section if your installation meets the restrictions for this product. For all other dead-ends, contact PLP with cable specifications, line design details and advise of unusual operating conditions or high temperature environments so that proper dead-end designs can be selected.

To have accessories included with any Dead-end, add the appropriate suffix to the dead-end catalog number. Example: #2872001C1E1 includes Dead-end #2872001, Thimble Clevis TC-FO and Extension Link kit. See next page for available accessories.



FIBERLIGN® Dielectric Dead-end for ADSS

All Dielectric Dead-ends require a proper size and strength Thimble Clevis and may utilize an Extension Link.

To include accessories with Dead-end, add suffix code(s) to Dead-end catalog number.

Thimble Clevis:

Limited and Medium Tension Dead-ends require the Catalog No. TC-FO Thimble Clevis (Rated Strength 26,900# (119 kN)) suffix Code "C1" or Cat No. TC-5A Thimble Clevis (Rated Strength 12,000# (53 kN)). The galvanized ductile iron #TC-FO is standard with a 2-1/4" minimum seat and 7/8" minimum groove diameter. The aluminum #TC-5A is optional with the same dimensional characteristics.

High Tension Dead-ends require at least the 20,000# (89 kN) ATC-20M Thimble Clevis (code C2) or equal with 3" minimum seat and 1-1/2" minimum groove diameters. For higher loads, use the 42,400# (188 kN) TC-6F (code C4) galvanized iron Thimble Clevis or equal with 2-1/2" minimum seat diameter and 1-1/16" minimum groove diameter.

Extension Link:

A 15,000# (67 kN) 14" (356 mm) Extension Link with 5/8" Eye Nut (Cat. #71002366, code E1) is recommended to increase the cable bending radius and reduce stress to the optical fibers at Dead-end locations. This link kit is required for dual layer FIBERLIGN Dielectric Dead-ends, but optional for single layer designs.

For higher loads, use the 25,000# (111 kN), 14" (356 mm) Extension Link (Cat.# LCE-66-14 or code E2).

Loads up to 36,000 pounds can be handled with Cat. No. 000601325 (not shown).

Banding Bracket:

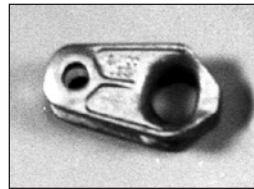
Dielectric Dead-ends can be banded to concrete or steel structures using the 12Klb Banding Bracket Kit (Cat. #710010745, code B1). The kit includes a 5/8"-11x2" long bolt, lockwasher, hex nut and banding bracket. This connects to the Extension Link with 5/8" eye nut referenced above (Cat #71002366). The bracket is rated for 12,000# (53 kN) and should be used with two high strength 1-1/4" steel bands (not supplied).



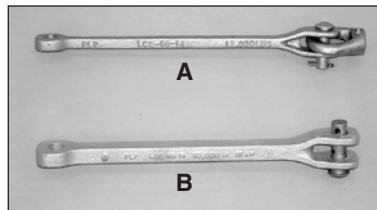
TC-FO Thimble Clevis (Code C1)



ATC-20M Thimble Clevis (Code C2)

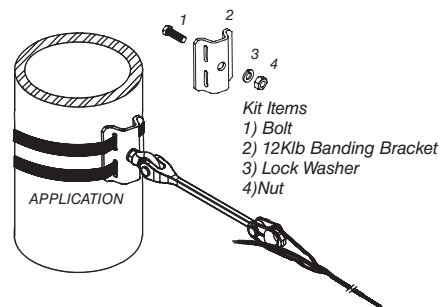


TC-6F Thimble Clevis (Code C4)



(A) 14" Extension Link with Eye Nut, 15K (Cat. No. 71002366, code E1)

(B) 25K EXTENSION LINK (Cat. No. LCE-66-14, code E2)



12Klb Banding Bracket Kit (Cat. No. 710010745, code B1)