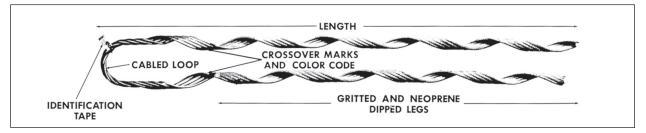
#### NOMENCLATURE



Crossover Marks: Indicate starting point for application.

**Gritted and Neoprene Dipped Legs:** Grit is permanently embedded in a coating of neoprene.

### **GENERAL RECOMMENDATIONS**

Coated Dead-ends: are manufactured of aluminum alloy wire, and are designed for direct application over conductors jacketed with neoprene, polyethylene, vinyl, or rubber. The sub-setted rods in each leg, bonded together with neoprene, exert a low radial pressure without damaging the jacket. Because it is not necessary to skin the plastic covering, the same dead-end can be used for either aluminum-base or copper-base conductors.

Coated Dead-ends should not be used over fabric braided conductor. In this case, the fabric should be skinned and a *Distribution-Grip Dead-end* applied.

**RATED HOLDING STRENGTH.** Holding values of coated dead-ends are dependent on a combination of several factors:

- Conductor size, type, stranding
- Thickness of jacket
- Type of jacket
- Specific density of various polyethylenes

The multiplicity of combinations makes it impractical to publish a table of "Rated Holding Strengths." As a general guide, the following considerations may be adapted for a certain conductor and construction practice.

When tested under static tension (ram speed of two inches per minute), Coated Dead-ends will hold the full rated breaking strength of all-aluminum and copper conductors, jacketed with neoprene or medium density polyethylene. Static tension results on ACSR approximates the full strength of the aluminum strands plus 10% of the steel core strength.

When Coated Dead-ends are tested under sustained (24 hours) loading, generally lower holding strengths are recorded. This is attributed to the cold-flow characteristics and frictional coefficient of various plastics. The graphs

**Color Code and Length:** Assist in identification of conductor size, corresponding to tabular information appearing on catalog pages.

**Identification Tape:** Shows catalog number and range of outside diameters.

appearing on the back of each catalog page are based on long-term sustained load tests and may be considered representative of the cables described.

This data indicates the highest percentage of rated breaking strength (RBS) is held on medium density polyethylene and vinyl. High density (linear) polyethylene has the lowest percent of RBS.

In addition to the specific densities, the data indicates the percent of RBS will also be reduced by increased jacket thickness.

The test results, expressed in actual pounds of sustained load capacity, make it apparent that values between 500 and 1,000 lbs. should be sufficient to meet field requirements on industrial or commercial service drops and messengered aerial spacer cables. Values exceeding 1,000 lbs. are sufficient for primaries and secondaries in urban distribution.

**TAPPING.** Coated Dead-ends allow the plastic jacket to remain intact and the conductor continues through the crossover point of the grip. Connectors are applied to the continued tail, with minimum stripping and exposure to corrosion.

RADIO INTERFERENCE. R.I.V. readings and flashover tests indicate Coated Dead-ends, applied over plastic jacketed conductors, have the same satisfactory electrical performance as dead-ends applied over bare conductors. This statement does not apply to fabric covered conductor. Distribution Grip (Slack Span/Overhead) Dead-ends are not recommended for use with high temperature/low sag conductors such as ACSS, ACSS/AW, ACSS/TW ACCR or other types of conductors with loose, and/or annealed outer layer strands. Typically THERMOLIGN® Dead-ends are suggested for these applications. Consult PLP for further information.

### GENERAL RECOMMENDATIONS CONTD.

	SIZE				
CAST	SPOOL INSULATOR	DROP- FORGED	THIMBLES  DIAMETERS GROOVE WIDTH		CONDUCTOR OUTSIDE DIAMETERS
			Diameters 1 ¼" to 23/8"	Groove Width 5/16" Min.	Sizes up to .310" O.D.
			Diameters 1 1/4" to 23/8"	Groove Width 3/8" Min.	Sizes up to .374" O.D.
			Diameters 1 ¼" to 2¾"	Groove Width	Sizes up to .428" O.D.
			Diameters 1¼" to 2¾"	Groove Width ½″ Min.	Sizes up to .507" O.D.
			Diameters 1 ¼" to 2¾"	Groove Width 5%" Min.	Sizes up to .608" O.D.
¾" Groove Width		¾" Groove Width	Diameters 1 ¼" to 2¾"	Groove Width 3/4" Min.	Sizes up to .783" O.D.
⅓″ Groove Width			Diameters 1½" to 2¾"	Groove Width 7/8" Min.	Sizes up to .888" O.D.
			Diameters 1½" to 2¾"	Groove Width 1" Min.	Sizes up to 1.005" O.D.
			Diameters 1½" to 2¾"	Groove Width 1 1/8" Min.	Sizes up to 1.138" O.D.
1½″ Groove Width	NEMA 53-1 NEMA 53-2 NEMA 53-3 Diameters 1½" to 2¾"		Diameters 1½" to 2¾"	Groove Width 1½" Min.	Sizes up to 1.550" O.D.

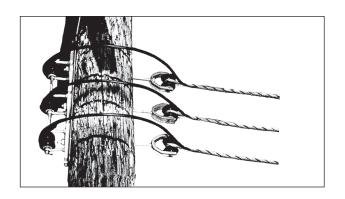
Loops are designed for use with a variety of thimble-clevises, insulators, and thimbles. The fittings appearing in this table have smoothly contoured diameters and adequate groove widths.

Consult Factory for spool insulators ANSI Class 53-4 and 53-5.

### SAFETY CONSIDERATIONS

- This product is intended for a single (one-time) use and for the specified application, although it may be reapplied twice for re-tensioning within 90 days of initial installation. CAUTION: DO NOT MODIFY OR REUSE THIS PRODUCT AFTER 90 DAYS UNDER ANY CIRCUMSTANCES.
- 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.
- 3. When working in the area of energized lines with this product, EXTRA CARE should be taken to prevent accidental electrical contact.
- 4. For PROPER PERFORMANCE AND PERSONAL SAFETY be sure to select the proper size PLP product before application.
- **5.** PLP products are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.

For use on: Plastic Jacketed Conductors Polyethylene, Neoprene Vinyl, Rubber



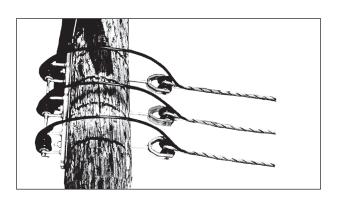
	Rai	neter nge hes)	Nominal	Units	Wt.Lbs.		
Catalog Number	Min.	Max.	Conductor Size  AWG or MCM	Per Carton		Length (inches)	Color Code
ND-0500	.243	.253	#6, 7W, 2/64s	100	13	16	Green
ND-0501	.254	.264	#6, Solid, 3/64s #6, 6/1, 2/64s	100	14	17	Red
ND-0502	.265	.272	#4, Solid, 2/64s	100	14	17	Blue
ND-0503	.273	.284	#6, 7W, 3/64s	100	14	18	Orange
ND-0100	.285	.297	#6, 6/1, 3/64s #4, 7W, 2/64s	100	15	19	Black
ND-0101	.298	.310	#4, Solid, 3/64s #6, 7W, 4/64s	100	17	19	Yellow
ND-0102	.311	.323	#4, 7W, 2/64s Al. Alloy #4, 6/1, 2/64s	100	18	20	Blue
ND-0103	.324	.338	#6, 7W, 4/64s, Al. Alloy #4, 7W, 3/64s	100	18	20	Orange
ND-0104	.339	.354	#4, 7W, 3/64s, Al. Alloy #4, 6/1, 3/64s	100	20	21	Black
ND-0105	.355	.374	#4, 7W, 4/64s	100	20	22	Yellow
ND-0106	.375	.397	#4, 7W, 4/64s #4, 7W, 5/64s	100	25	23	Red
ND-0107	.398	.420	#2, 6/1, 3/64s #2, 7/1, 3/64s	100	26	24	Green
ND-0108	.421	.445	#2, 7W, 4/64s, Al. Alloy #1, 7W, 3/64s	50	20	27	Black
ND-0109	.446	.475	#1, 7W, 4/64s #4, 7W, 8/64s	50	22	28	Orange

Conductor may be right-hand lay or left-hand lay.

#### **EXPLANATORY NOTES:**

(1) Nominal conductor size indicates one of various combinations of conductor sizes and jacket thickness within each range.

For use on: Plastic Jacketed Conductors Polyethylene, Neoprene Vinyl, Rubber



Catalog Number	Size	Jacketing	Outside Diameter (inches)	Sustained Load Test Results (lbs.)	Percent of Breaking Strength
ND-0500	#6, 7W, 2/64s	Poly.*	.246	450	89%
ND-0100	#4, 7W, 2/64s	Poly.*	.294	750	95%
ND 0400	#4, 6/1, 2/64s	Poly.*	.313	800	46%
ND-0102	#4, 7/1, 2/64s	Poly. (.929)	.320	850	39%
ND-0103	#4, 7W, 3/64s	Neoprene	.326	800	108%
ND-0104	#4, 6/1, 3/64s	Neoprene	.344	750	43%
ND 0400	#2, 7W, 3/64s	Neoprene	.386	600	52%
ND-0106	#2, 7W, 3/64s	Poly.*	.386	750	62%
	#2, 6/1, 3/64s	Poly.*	.410	900	34%
ND-0107	#2, 6/1, 3/64s	Neoprene	.410	900	34%
	#2, 7/1, 3/64s	Poly.*	.419	1,200	35%
	#2, 7/1, 3/64s	Neoprene	.419	1,000	30%

<sup>\*</sup> Low density or medium density polyethylene per ASTM D-1243-58T.

This table is based on actual results of long term sustained load tests and may be considered representative of the cables described. Refer earlier in this section for an explanation of the multiple factors affecting holding strength of Coated Dead-ends.

For use on: Plastic Jacketed Conductors Polyethylene, Neoprene Vinyl, Rubber

Catalog	Diameter Range (inches)		Nominal Conductor Size Units		Wt. Lbs.	Length	Color
Number	Min.	Max.	AWG or MCM	Per (	Carton	(inches)	Code
ND-0110	.476	.507	#1, 19W, 5/64s 1/0, 7W, 4/64s	50	30	30	Blue
ND-0111	.508	.536	1/0, 19W, 6/64s 1/0, 19W, 5/64s	50	29	30	Red
ND-0112	.537	.571	2/0, 7W, 4/64s 2/0, 19W, 6/64s, Comp.	50	34	31	Black
ND-0113	.572	.608	3/0, 19W, 4/64s 2/0, 19W, 5/64s	50	36	33	Yellow
ND-0114	.609	.648	1/0, 7W, 8/64s 4/0, 7W, 4/64s	25	24	33	Red
ND-0115	.649	.690	1/0, 7W, 10/64s 4/0, 19W, 4/64s	25	26	34	Green
ND-0116	.691	.735	250, 19W, 4/64s 266.8, 18/1, 4/64s	25	30	35	Black
ND-0117	.736	.783	3/0, 7W, 10/64s	25	32	36	Orange
ND-0118	.784	.834	300, 19W, 5/64s 336.4, 19W, 5/64s	25	34	38	Blue
ND-0119	.835	.888	350, 19W, 5/64s 300, 19W, 10/64s Comp.	25	40	40	Black
ND-0120	.889	.945	250, 19W, 10/64s 300, 19W, 10/64s	25	44	42	Yellow
ND-0121	.946	1.005	450, 37W, 6/64s 500, 37W, 6/64s	25	52	44	Green
ND-0122	1.006	1.070	450, 37W, 8/64s 336.4, 19W, 12/64s	10	24	45	Red
ND-0123	1.071	1.138	350, 19W, 12/64s 500, 37W, 10/64s	10	24	47	Blue
ND-0124	1.139	1.212	636, 37W, 10/64s Comp. 500, 37W, 12/64s	10	30	48	Orange
ND-0125	1.213	1.288	795, 61W, 6/64s 795, 37W, 10/64s Comp.	10	30	49	Black
ND-0126	1.289	1.372	1033.5, 61W, 6/64s	10	32	51	Yellow
ND-0127	1.373	1.458	715, 37W, 14/64s	10	38	53	Green
ND-0128	1.459	1.550	795, 37W, 14/64s	10	40	56	Red

Right-hand or Left-hand lay is standard.

#### **EXPLANATORY NOTES:**

- (1) Nominal conductor size indicates one of various combinations of conductor sizes and jacket thickness within each range.
- (2) Cabled loop design furnished for all sizes on this page. See reference chart in this section for acceptable fittings.
- (3) Holding strength values for representative sizes appear on the next page.

For use on: Plastic Jacketed Conductors Polyethylene, Neoprene Vinyl, Rubber



Size	Jacketing (Specific Gravity)	Outside Diameter (inches)	Sustained Load Test Results (Lbs.)	Percent of Breaking Strength
2/0, 7W, 4/64s	Poly. (.928)	.539	1,800	104%
1/0, 7W, 4/64s	Poly. (.931)	.493	2,200	101%
1/0, 7W, 4/64s	Neoprene	.493	1,650	98%
2/0, 7W, 4/64s	Neoprene	.539	2,100	99%
366.4, 19W, 4/64s	Poly. (.933)	.791	4,500	79%
400, 19W, 6/64s	Neoprene	.913	5,000	80%
250, 19W, 5/64s	Neoprene	.732	3,200	79%
397.5, 19W, 6/64s	Poly. (.928)	.912	4,700	72%
3/0, 7W, 8/64s	Poly. (.927)	.706	1,900	70%
336.4, 19W, 5/64s	Neoprene	.824	3,600	67%
500, 37W, 6/64s	Poly. (.926)	1.001	5,600	65%
336.4, 19W, 4/64s	Poly. (.920)	.791	3,600	63%
1/0, 7W, 4/64s	Poly. (.918)	.493	1,100	62%
#4, 6/1, 8/64s	Poly. (.929)	.502	950	54%
4/0, 7W, 10/64s	Poly. (.920)	.830	3,000	49%
4/0, 7W, .078	Vinyl	.695	1,600	47%
336.4, 19W, .150" Compacted	Poly. (.943)	.910	2,600	46%
266.8, 19W, 10/64s	Poly. (.966)	.885	1,800	40%
4/0, 6/1, 4/64s	Neoprene	.688	2,900	36%
1/0, 7W, 10/64s	Poly. (.982)	.678	600	33%
1/0, 7W, 10/64s	Poly. (.949)	.692	500	28%

# Please visit our web site at www.preformed.com for additional literature.

### Coated Dead-end Application Procedure - SP2014

This table is based on actual results of long term sustained load tests and may be considered representative of the cables described.

Refer to reference charts in this section for additional information on Holding Strengths.

## Specific gravity of various polyethylenes: ASTM Designation D-1248-58T

 Low Density (g/cu. cm.)
 0.910-0.925

 Medium Density (g/cu. cm.)
 0.926-0.940

 High Density (g/cu. cm.)
 0.941-0.965