

3-Layer 15kV ACSR Tree Wire/Spacer Cable

An Alternative and Robust Design to Bare ACSR Conductors to Harden the Electrical Grids.

3-Layer 15kV ACSR Tree Wire Concentrically Stranded ACSR Track-Resistant Crosslinked Polyethylene (HDTRXLPE).



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Concentrically stranded ACSR
2. **Strand Shield:** Semi-conducting cross linked polymer
3. **Inner Layer:** Low-Density Crosslinked Polyethylene (LDXLPE)
4. **Outer Layer:** High-Density Track-Resistant Crosslinked Polyethylene (HDTRXLPE)

APPLICATIONS AND FEATURES:

Used for primary and secondary overhead distribution where limited space is available or desired for rights-of-way. Installed the same as bare conductors, however, covering is effective in preventing direct shorts and instantaneous flashovers should tree limbs or other objects contact conductors in such close proximity.

- Tree Wire - Used for spans where trees crowd the right-of-way, such as in wooded residential areas, when a minimum of interference with the environment is desired. Covering minimizes power outages due to conductor contact with tree limbs, reducing the need for frequent or severe trimming.
- Covering Rated 90°C Normal and 130°C Emergency Operation. Unless adequate knowledge of the thermal characteristics of the environment is known, the permissible conductor temperature should be reduced by 10°C or in accordance with available data.

SPECIFICATIONS:

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B232 Concentric-Lay-Stranded, Aluminum Conductors, Coated Steel Reinforced (ACSR)
- ASTM B498 Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)
- ASTM B500 Metallic Coated Stranded Steel Core for use in overhead Electrical Conductors
- ICEA S-121-733 Tree Wire and Messenger Supported Spacer Cable



Table 1 – Weights and Measurements

Cond. Size	Cond. Strands	Diameter Over Conductor	Conductor Shield Thickness	Inner Layer Thickness	Outer Layer Thickness	Approx. OD	Approx. Weight	Rated Strength
AWG/ Kcmil	#	inch	mil	mil	mil	inch	lb/1000ft	lb
4	6/1	0.250	15	75	75	0.580	149	1767
2	6/1	0.316	15	75	75	0.646	202	2708
1/0	6/1	0.398	15	75	75	0.728	278	4161
2/0	6/1	0.447	15	75	75	0.777	330	5045
3/0	6/1	0.502	15	75	75	0.832	393	6289
4/0	6/1	0.563	15	75	75	0.893	471	7933
266.8	18/1	0.609	15	75	75	0.939	474	6536
266.8	26/7	0.642	15	75	75	0.972	553	10735
336.4	18/1	0.684	15	75	75	1.014	570	8246
336.4	26/7	0.720	15	75	75	1.050	669	13395
336.4	30/7	0.741	15	75	75	1.071	935	16435
397.5	18/1	0.743	15	75	75	1.073	653	9443

All dimensions are nominal and subject to normal manufacturing tolerances

