Covered Line Wire With Crosslinked Polyethylene (XLPE) - ACSR

ACSR Covered with Black Crosslinked Polyethylene



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- 1. Conductor: Stranded compressed aluminum steel reinforced ACSR
- 2. Insulation: Black Crosslinked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

Aluminum alloy 1350-H19 concentrically stranded steel reinforced ACSR. Covered with crosslinked polyethylene (XLP). Used primarily for, but not limited to, overhead secondary distribution lines. Installed on insulators, otherwise treated as a bare conductor. Crosslinked covered line wires have the below temperature ratings:

- Normal Service temperature of 90°C
- Emergency Overload of 130°C
- Short Circuit temperature of 250°C

SPECIFICATIONS:

- ASTM B232 Concentric-Lay-Stranded, Aluminum Conductors, Coated Steel Reinforced (ACSR)
- ICEA S-70-547 Weather Resistant Polyethylene Covers Conductors

Table 1 Weights and Measurements ACSR

Stock Code	Code Word	Size (AWG or kcmil)	Stranding	Cover Thickness	Total Diameter	Rated Strength (Ibs.)	Weight Per 1000 ft. (lbs.)	Allowable Ampacity+
		AWG or Kcmils		mils	mils	lbs	lbs/1000 ft	amps
	Walnut	6	6/1	30	258	1130	47	105
	Butternut	4	6/1	30	310	1770	72	135
	Hickory	4	7/1	30	317	2240	83	135
104398	Pignut	2	6/1	45	406	2710	118	180
	Beech	2	7/1	45	415	3460	136	180
	Chestnut	1	6/1	45	444	3370	145	210
104422	Almond	1/0	6/1	60	518	4160	190	235
104430	Pecan	2/0	6/1	60	567	5040	233	270
104448	Filbert	3/0	6/1	60	622	6290	288	305
104455	Buckeye	4/0	6/1	60	683	7930	357	345
	Hackberry	266.8	18/1	60	729	6540	354	435





+Ampacity ratings based on 75°C conductor temperature 25°C ambient temperature elevation - sea level. Emissivity 0.91 coefficient of absorption 0.95. Thermal resistivity of covering - 375 C M /Watt-CM. Wind speed 2 ft./sec. in sun.



