



## • Application

Covered AL line wire with ACSR (Aluminum Conductor Steel Reinforced) is primarily used for overhead secondary distribution lines. Although the conductor is covered for waterproofing and protection against environmental elements, it is not electrically insulated and should be treated as a bare conductor when installed.

## • Advantage

**High Tensile Strength:** The steel core in ACSR conductors provides exceptional tensile strength, allowing for longer spans and reduced sag.

**Weatherproofing:** Covering materials such as PE, HDPE, and XLPE protect against moisture, UV radiation, and physical damage, extending the conductor's lifespan.

**Enhanced Durability:** The combination of aluminum and steel in ACSR conductors ensures long-term reliability, reducing maintenance requirements.

**Corrosion Resistance:** The steel core's coating and the aluminum layers offer excellent resistance to corrosion, making these conductors suitable for harsh environmental conditions.

**Cost-Effective:** Despite the additional strength and durability, ACSR conductors remain a cost-effective choice for various applications.

## • Construction

Covered Line Wires for ACSR conductors are constructed using a combination of materials designed to optimize both electrical and mechanical performance:

**Core:** Steel wires with an aluminum-clad or galvanized coating to enhance strength and corrosion resistance.

**Outer Layers:** Aluminum 1350-H19 wires concentrically stranded around the steel core to provide excellent conductivity.

**Covering Materials:** The conductors are weatherproofed with high-quality materials:

**Polyethylene (PE):** Basic protection against weather and abrasion.

**High Density Polyethylene (HDPE):** Improved durability and environmental stress resistance.

**Crosslinked Polyethylene (XLPE):** Superior thermal resistance, mechanical strength, and longevity.

## • Specification

-ASTM B-230 - Aluminum 1350-H19 Wire for Electrical Purposes.

-ASTM B-231 - Concentric-lay-stranded Aluminum Conductors, Coated-steel Reinforced (ACSR).

-ASTM B-1248 - Polyethylene Plastics Molding and Extrusion Materials.

-ASTM C-8.35 - Specifications for Weather-resistant Polyethylene-Covered Wire and Cable.

-ICEA S-70-547-Covered Line Wire Aluminum Conductor

-NEMA PUB NO. WC 5-1973 - Standards Publication Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

## • Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

## • Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



## • National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

\*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

Code Name	Size	No.of Wires	Insulation Thickness	Nominal Diameter		Rated Strength	Nominal Weight				Ampacity
				Conductor	Cable		Aluminum	LDPE	HDPE	XLPE	
-	AWG or kcmil	-	mm	mm	mm	kg	kg/km	kg/km	kg/km	kg/km	A
Walnut	6	6/1	0.762	5.029	6.553	540	36.46	69.94	71.43	71.43	105
Butternut	4	6/1	0.762	6.350	7.874	844	58.04	107.15	170.15	108.64	135
Hickory	4	7/1	0.762	6.528	8.052	1070	58.04	120.54	122.03	123.52	135
Pignut	2	6/1	1.143	8.026	10.312	1293	92.27	175.60	177.09	178.58	180
Beech	2	7/1	1.143	8.357	10.643	1651	92.27	199.41	199.41	202.39	180
Chestnut	1	6/1	1.143	13.970	11.303	1610	116.37	217.27	218.76	220.25	210
Almond	1/0	6/1	1.524	10.109	13.157	1987	146.73	282.75	284.24	287.21	235
Pecan	2/0	6/1	1.524	11.354	14.402	2404	184.98	348.23	349.72	349.72	290
Filbert	3/0	6/1	1.524	12.751	15.799	3003	233.34	430.08	433.05	437.52	305
Buckeye	4/0	6/1	1.524	14.300	17.348	3787	294.21	531.27	535.74	540.20	345
Hackberry	266.8	18/1	1.524	15.469	18.517	3121	372.63	525.32	528.30	534.25	356