



ACSR/AS (AW) Wire

Product Description

Concentric-lay-stranded conductors made from round Aluminum 1350-H19 with an aluminum-clad steel core, either AW2 (normal strength) or AW3 (high strength).

Application

Primarily used as the phase conductor for overhead transmission and distribution. It is preferred over conventional ACSR because of its higher corrosion resistance, lighter weight, longer service life, and reduced power loss. The corrosion resistant aluminum-cladding of the steel core makes this product preferred in coastal environments or areas that are prone to pollution.

Specifications

ASTM B502 – Round, single end, Aluminum-clad Steel core wire used in the manufacture of AS/AC (AWAC) and ACSR/AS (AW) cables. Two tensile strengths available, AW2 (Normal Strength) and AW3 (High Strength); ASTM B230 – This specification covers aluminum 1350-H19 (extra hard) round wire for electrical purposes; ASTM B549 – This specification covers concentric-lay-stranded conductors made from round aluminum 1350-H19 (extra hard) aluminum wires and round aluminum-clad steel core wires for use as overhead electrical conductors.

Code Word	Size (AWG or kcmil)	Stranding (AL/AS)	Diameter			Weight lbs./1,000 ft.			Minimum Breaking Strength (lbs.)	Resistance – Ω /1,000 ft.		Allowable Ampacity+ (Amps)
			Individual Wires		Complete Cable	AL	AS	Total		DC@20°C	AC@75°C	
			AL	AS(AW)								
Swan/AW	4	6/1	.0834	.0834	.250	39	16	55	1,780	.3917	.4770	145
Swanate/AW	4	7/1	.0772	.1029	.257	39	24	63	2,280	.3814	.4642	148
Sparrow/AW	2	6/1	.1052	.1052	.316	62	25	87	2,760	.2462	.2997	194
Sparate/AW	2	7/1	.0974	.1299	.325	62	38	100	3,510	.2396	.2917	198
Raven/AW	1/0	6/1	.1327	.1327	.398	99	39	138	4,250	.1547	.1884	260
Quail/AW	2/0	6/1	.1490	.1490	.447	124	50	174	5,130	.1227	.1494	301
Pigeon/AW	3/0	6/1	.1672	.1672	.502	156	63	219	6,300	.0975	.1188	347
Penguin/AW	4/0	6/1	.1878	.1878	.563	197	79	277	7,690	.0773	.0942	402
Waxwing/AW	266.8	18/1	.1217	.1217	.609	250	33	283	6,820	.0636	.0778	451
Partridge/AW	266.8	26/7	.1013	.0788	.642	251	98	349	10,800	.0617	.0754	465
Merlin/AW	336.4	18/1	.1367	.1367	.684	315	42	359	8,540	.0504	.0618	522
Linnet/AW	336.4	26/7	.1138	.0885	.721	317	123	440	13,500	.0490	.0599	537
Chickadee/AW	397.5	18/1	.1486	.1486	.743	373	50	422	9,780	.0427	.0523	580
Ibis/AW	397.5	26/7	.1236	.0961	.783	374	146	520	15,800	.0414	.0507	597
Pelican/AW	477	18/1	.1628	.1628	.814	447	59	507	11,500	.0356	.0434	651
Hawk/AW	477	26/7	.1355	.1054	.858	449	175	624	18,900	.0345	.0423	669
Osprey/AW	556.5	18/1	.1758	.1758	.879	522	69	591	13,200	.0305	.0375	715
Dove/AW	556.5	26/7	.1463	.1138	.927	524	204	728	21,900	.0296	.0363	737
Peacock/AW	605	24/7	.1588	.1059	.953	570	177	746	21,000	.0275	.0338	770
Kingbird/AW	363	18/1	.1880	.1880	.940	596	79	675	15,000	.0267	.0327	778
Rook/AW	363	24/7	.1628	.1085	.977	599	186	785	22,000	.0262	.0322	794
Grosbeak/AW	363	26/7	.1564	.1216	.990	599	233	832	24,800	.0259	.0318	801
Tern/AW	795	45/7	.1329	.0886	1.063	749	124	873	21,500	.0214	.0264	896
Drake/AW	795	26/7	.1749	.1360	1.108	749	292	1,040	30,500	.0207	.0255	922
Canary/AW	900	54/7	.1291	.1291	1.162	848	263	1,111	31,000	.0185	.0229	986
Rail/AW	954	45/7	.1456	.0971	1.165	899	149	1,047	25,400	.0178	.0221	1,003
Cardinal/AW	954	54/7	.1329	.1329	1.196	899	279	1,177	32,900	.0174	.0216	1,022
Ortolan/AW	1033.5	45/7	.1515	.1010	1.212	973	161	1,134	27,200	.0164	.0204	1,054
Curlew/AW	1033.5	54/7	.1383	.1383	1.244	973	302	1,275	35,200	.0161	.0200	1,074
Bluejay/AW	1113	45/7	.1573	.1049	1.259	1,048	173	1,222	29,300	.0161	.0191	1,103
Bunting/AW	1192.5	45/7	.1628	.1085	1.302	1,125	186	1,311	31,300	.0143	.0192	1,150
Bittern/AW	1272	45/7	.1681	.1121	1.345	1,200	198	1,398	33,400	.0134	.0179	1,192
Pheasant/AW	1272	54/19	.1535	.0921	1.382	1,204	364	1,568	42,400	.0132	.0165	1,216
Bobolink/AW	1431	45/7	.1783	.1189	1.427	1,348	223	1,571	37,600	.0119	.0150	1,283
Lapwing/AW	1590	45/7	.1880	.1253	1.504	1,498	248	1,745	41,800	.0107	.0137	1,365

Conductor temperature of 75°C ambient temperature 25°C, emissivity 0.5, wind 2ft/sec., in sun.

All weights, measurements, and values are nominal. All ASTM specifications are per the latest addition. Made in U.S.A.