

Non-Specular Finish Aluminium Conductor Steel Reinforced (ACSR)



Construction : Non-Specular Finish ACSR is stranded concentrically by aluminium wires with galvanized steel wire(s) in center for reinforcement



Application: Non-Specular Finish ACSR is suitable for MV, HV and EHV overhead, long distance transmission and distribution. The non-specular finish ACSR can be installed in the vicinity of airport provided it is treated by a special technology to form a dull matte gray finish on its surface, which scatters the reflect light from the sun or other light sources so that it dose not interfere pilot's vision when plane taking off or landing.



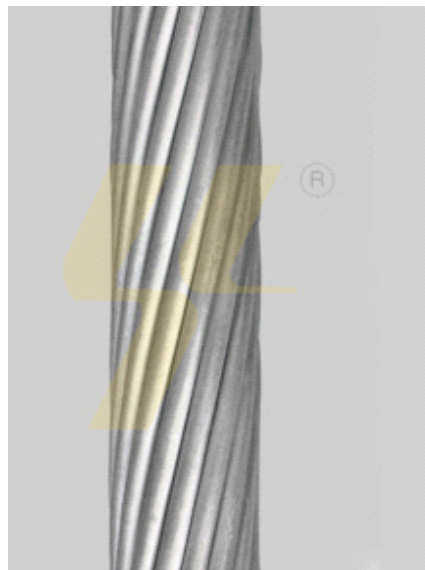
Operating Temperature: Max permissible continuous operating temperature of conductor shall not exceed 90°C.



Standard: ASTM B232, BS215, DIN48204, IEC61089, GB/T1179, or other standards required by customers.



Packing: Coil, steel/wooden reel, wooden reel or steel reel.



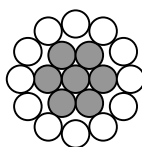
Mechanical Property of Non-Specular Finish ACSR

Composition	Final modulus of elasticity Mpa	Coefficient of linear expansion /°C	Composition	Final modulus of elasticity Mpa	Coefficient of linear expansion /°C
6+1	79000	19.1X10 ⁻⁶	30+7	75500	18.0X10 ⁻⁶
9+3	88000	17.1X10 ⁻⁶	54+7	69000	19.3X10 ⁻⁶
12+7	103500	15.4X10 ⁻⁶	72+19	61000	21.5X10 ⁻⁶
18+1	66000	21.2X10 ⁻⁶	84+7	66000	20.4X10 ⁻⁶

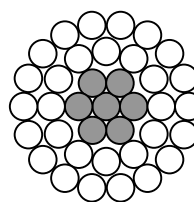
Construction of Non-Specular Finish Aluminium Conductor Steel Reinforced



6Al/1ST



12Al/7ST



30Al/7ST

Code Word	Size (Al)	Stranding No./Diameter		Code Word	Size (Al)	Stranding No./Diameter	
	AWG or kcmil	Al	Steel		AWG or kcmil	Al	Steel
		No./mm	No./mm			No./mm	No./mm
Wren	8	6/1.33	1/1.33	Redwing	715.5	30/3.92	19/2.35
Turkey	6	6/1.68	1/1.68	Tern	795	45/3.38	7/2.25
Swan	4	6/2.12	1/2.12	Condor	795	54/3.08	7/3.08
Swanate	4	7/1.96	1/2.61	Cuckoo	795	24/4.62	7/3.08
Swallow	3	6/2.38	1/2.38	Drake	795	26/4.44	7/3.45
Sparrow	2	6/2.67	1/2.67	Coot	795	36/3.77	1/3.77
Sparate	2	7/2.47	1/3.30	Mallard	795	30/4.14	19/2.48
Robin	1	6/3.00	1/3.00	Ruddy	900	45/3.59	7/2.40
Raven	0	6/3.37	1/3.37	Canary	900	54/3.28	7/3.28
Quail	2/0	6/3.78	1/3.78	Rail	954	45/3.70	7/2.47
Pigeon	3/0	6/4.25	1/4.25	Catbird	954	36/4.14	1/4.14
Penguin	4/0	6/4.77	1/4.77	Cardinal	954	54/3.38	7/3.38
Waxwing	266.8	18/3.09	1/3.09	Ortolan	1033.5	45/3.85	7/2.57
Partridge	266.8	26/2.57	7/2.00	Tanager	1033.5	36/4.30	1/4.30
Ostrich	300	26/2.73	7/2.12	Curlew	1033.5	54/3.52	7/3.52
Merlin	336.4	18/3.47	1/3.47	Bluejay	1113	45/4.00	7/2.66
Linnet	336.4	26/2.89	7/2.25	Finch	1113	54/3.65	19/2.19
Oriole	336.4	30/2.69	7/2.69	Bunting	1192.5	45/4.14	7/2.76
Chickadee	397.5	18/3.77	1/3.77	Grackle	1192.5	54/3.77	19/2.27
Brant	397.5	24/3.27	7/2.18	Bittern	1272	45/4.27	7/2.85
Ibis	397.5	26/3.14	7/2.44	Pheasant	1272	54/3.90	19/2.34
Lark	397.5	30/2.92	7/2.92	Skylark	1272	36/4.78	1/4.78
Pelican	477	18/4.14	1/4.14	Dipper	1351.5	45/4.40	7/2.92
Flicker	477	24/3.58	7/2.39	Martin	1351.5	54/4.02	19/2.41
Hawk	477	26/3.44	7/2.67	Bobolink	1431	45/4.53	7/3.02
Hen	477	30/3.20	7/3.20	Plover	1431	54/4.14	19/2.48
Osprey	556.5	18/4.47	1/4.47	Nuthatch	1510.5	45/4.65	7/3.10
Parakeet	556.5	24/3.87	7/2.58	Parrot	1510.5	54/4.25	19/2.55
Dove	556.5	26/3.72	7/2.89	Lapwing	1590	45/4.77	7/3.18
Eagle	556.5	30/3.46	7/3.46	Falcon	1590	54/4.36	19/2.62
Peacock	605	24/4.03	7/2.69	Chukar	1780	84/3.70	19/2.22
Squab	605	26/3.87	7/3.01	Bluebird	2156	84/4.07	19/2.44
Wood duck	605	30/3.61	7/3.61	Kiwi	2167	72/4.41	7/2.94
Teal	605	30/3.61	19/2.16	Thrasher	2312	76/4.43	19/2.09
Kingbird	636	18/4.78	1/4.78	Grouse	80	8/2.54	1/4.24
Rook	636	24/4.14	7/2.76	Petrel	101.8	12/2.34	7/2.34
Grosbeak	636	26/3.97	7/3.09	Minorca	110.8	12/2.44	7/2.44
Scoter	636	30/3.70	7/3.70	Leghorn	134.6	12/2.69	7/2.69
Egret	636	30/3.70	19/2.22	Guinea	159	12/2.92	7/2.92
Swift	636	36/3.38	1/3.38	Dotterel	176.9	12/3.08	7/3.08
Flamingo	666.6	24/4.23	7/2.82	Dorking	190.8	12/3.20	7/3.20
Gannet	666.6	26/4.07	7/3.16	Brahma	203.2	16/2.86	19/2.48
Stilt	715.5	24/4.39	7/2.92	Cochin	211.3	12/3.37	7/3.37
Starling	715.5	26/4.21	7/3.28				

Code Word	Size	Stranding No./Diameter		Code Word	Size	Stranding No./Diameter	
	AWG or kcmil	Al	Steel		AWG or kcmil	Al	Steel
		No./mm	No./mm			No./mm	No./mm
Mole	10	6/1.50	1/1.50	Tiger	125	30/2.36	7/2.36
Squirrel	20	6/2.11	1/2.11	Dingo	150	18/3.35	1/3.35
Gopher	25	6/2.36	1/2.36	Wolf	150	30/2.59	7/2.59
Weasel	30	6/2.59	1/2.59	Caracal	175	18/3.61	1/3.61
Fox	35	6/2.79	1/2.79	Lynx	175	30/2.79	7/2.79
Ferret	40	6/3.00	1/3.00	Jaguar	200	18/3.86	1/3.86
Rabbit	50	6/3.35	1/3.35	Panther	200	30/3.00	7/3.00
Mink	60	6/3.66	1/3.66	Lion	225	30/3.18	7/3.18
Skunk	60	12/2.59	7/2.59	Bear	250	30/3.35	7/3.35
Beaver	70	6/3.99	1/3.99	Goat	300	30/3.71	7/3.71
Horse	70	12/2.79	7/2.79	Sheep	350	30/3.99	7/3.99
Raccoon	75	6/4.10	1/4.10	Antelope	350	54/2.97	7/2.97
Otter	80	6/4.22	1/4.22	Bizon	350	54/3.00	7.3.00
Cat	90	6/4.50	1/4.50	Deer	400	30/4.27	7/4.27
Hare	100	6/4.72	1/4.72	Zebra	400	54/3.18	7/3.18
Dog	100	6/4.72	7/1.57	Elk	450	30/4.50	7/4.50
Hyena	100	7/4.39	7/1.93	Camel	450	54/3.35	7/3.35
Leopard	125	8/5.28	7/1.75	Moose	500	54.3.53	7/3.53
Coyote	125	26/2.54	7/1.91	Finch	500	54/3.65	19/2.29
Congar	125	18/3.05	1/3.05				

ACSR German Standard DIN 48204

Size			Stranding No./Diameter			Size		
Al / Steel	Al	Steel	Al / Steel	Al	Steel	Al / Steel	Al	Steel
sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm
16/2.5	6/1.80	1/1.80	150/25	26/2.70	7/2.10	435/55	54/3.20	7/3.20
25/4.0	6/2.25	1/2.25	170/40	30/2.70	7/2.70	450/40	48/3.45	7/2.68
35/6.0	6/2.70	1/2.70	185/30	26/3.00	7/2.33	490/65	54/3.40	7/3.40
44/32.0	14/2.00	7/2.40	210/35	26/3.20	7/2.49	495/35	45/3.74	7/2.49
50/8.0	6/3.20	1/3.20	210/50	30/3.00	7/3.00	510/45	48/3.68	7/2.87
50/30	12/2.33	7/2.33	230/30	24/3.50	7/2.33	550/70	54/3.60	7/3.60
70/12	26/1.85	7/1.44	240/40	26/3.45	7/2.68	560/50	48/3.86	7/3.00
95/15	26/2.15	7/1.67	265/35	24/3.74	7/2.49	570/40	45/4.00	7/2.68
95/55	12/3.20	7/3.20	300/50	26/3.86	7/3.00	650/45	45/4.30	7/2.87
105/75	14/3.10	9/2.25	305/40	54/2.68	7/2.68	680/85	54/5.00	19/2.40
120/20	26/2.44	7/1.90	340/30	48/3.00	7/2.33	1045/45	72/4.30	7/2.87
120/70	12/3.60	7/3.60	380/50	54/3.00	7/3.00			
125/30	30/2.33	7/2.33	385/35	48/3.20	7/2.49			

ACSR(A1/S1A) International Standard IEC61089

Size (Al)	Stranding No./Diameter		Size (Al)	Stranding No./Diameter		Size (Al)	Stranding No./Diameter	
	Al	Steel		Al	Steel		Al	Steel
sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm
16	6/1.84	1/1.84	315	45/2.99	7/1.99	710	54/4.09	7/2.45
25	6/2.30	1/2.30	315	26/3.93	7/3.05	800	72/3.76	7/2.51
40	6/2.91	1/2.91	400	45/3.36	7/2.24	800	84/3.48	7/3.48
63	6/3.66	1/3.66	400	54/3.07	7/3.07	800	54/4.34	7/2.61
100	6/4.61	1/4.61	450	45/3.57	7/2.38	900	72/3.99	7/2.66
125	18/2.97	1/2.97	450	54/3.26	7/3.26	900	84/3.69	7/3.69
125	26/2.47	7/1.92	500	45/3.76	7/2.51	1000	72/4.21	7/2.80
160	18/3.36	1/3.36	500	54/3.43	7/3.43	1120	72/4.45	19/1.78
160	26/2.80	7/2.18	560	45/3.98	7/2.65	1120	84/4.12	19/2.47
200	18/3.76	1/3.76	560	54/3.63	19/2.18	1250	84/4.35	19/2.61
200	26/3.13	7/2.43	630	45/4.22	7/2.81	1250	72/4.70	19/1.88
250	22/3.80	7/2.11	630	54/3.85	19/2.31			
250	26/3.50	7/2.72	710	45/4.48	7/2.99			

ACSR Chinese Standard GB/T 1179

Size	Stranding No./Diameter		Size	Stranding No./Diameter		Size	Stranding No./Diameter	
	Al / Steel			Al / Steel			Al / Steel	
sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm
10/2	6/1.50	1/1.50	150/25	26/2.70	7/2.10	300/50	26/3.83	7/2.98
16/3	6/1.85	1/1.85	150/35	30/2.50	7/2.50	300/70	30/3.60	7/3.60
25/4	6/2.32	1/2.32	185/10	18/3.60	1/3.60	400/20	42/3.51	7/1.95
35/6	6/2.72	1/2.72	185/25	24/3.15	7/2.10	400/25	45/3.33	7/2.22
50/8	6/3.20	1/3.20	185/30	26/2.98	7/2.32	400/35	48/3.22	7/2.50
50/30	12/2.32	7/2.32	185/45	30/2.80	7/2.80	400/50	54/3.07	7/3.07
70/10	6/3.80	1/3.80	210/10	18/3.80	1/3.80	400/65	26/4.42	7/3.44
70/40	12/2.72	7/2.72	210/25	24/3.33	7/2.22	400/95	30/4.16	19/2.50
95/15	26/2.15	7/1.67	210/35	26/3.22	7/2.50	500/35	45/3.75	7/2.50
95/20	7/4.16	1/1.85	210/50	30/2.98	7/2.98	500/45	48/3.60	7/2.80
95/55	12/3.20	7/3.20	240/30	24/3.60	7/2.40	500/65	54/3.44	7/3.44
120/7	18/2.90	1/2.90	240/40	26/3.42	7/2.66	630/45	45/4.20	7/2.80
120/20	26/2.38	7/1.85	240/55	30/3.20	7/3.20	630/55	48/4.12	7/3.20
120/25	7/4.72	7/2.10	300/15	42/3.00	7/1.67	630/80	54/3.87	19/2.32
120/70	12/3.60	7/3.60	300/20	45/2.93	7/1.95	800/55	45/4.80	7/3.20
150/8	18/3.20	1/3.20	300/25	48/2.85	7/2.22	800/70	48/4.63	7/3.60
150/20	24/2.78	7/1.85	300/40	24/3.99	7/2.66	800/100	54/4.33	19/2.60