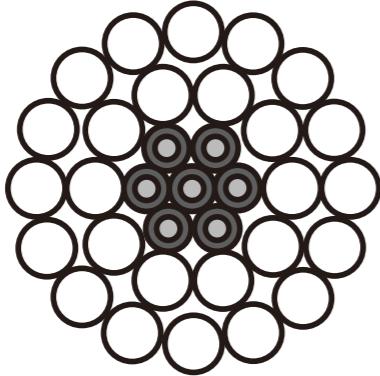


Aluminium Conductors, Aluminium-clad Steel Reinforced (ACSR/AC-1350)



Properties:

Aluminium conductors manufactured to AS 3607

The centre wire or wires are of aluminium-clad steel and the outer layer or layers are of aluminium

Structural Parameters:

Code name	Structure		Overall diameter	Calculated area			Approx. mass of conductor	Rated strength, Min	DC resistance at 20°C	AC resistance at 50Hz, 75°C	Calculated elasticity modulus	Coefficient of linear expansion
	AI	ACS		AI	ACS	Total						
	No./mm	No./mm	mm	mm ²	mm ²	mm ²	kg/km	kN	Ω/km	Ω/km	GPa	1/°C
Angling	6/2.50	1/2.50	7.5	29.45	4.91	34.36	113	10.6	0.923	1.1276	83	20.1E-06
Aquatics	6/2.75	1/2.75	8.3	35.64	5.94	41.58	137	12.7	0.763	0.9321	83	20.1E-06
Archery	6/3.00	1/3.00	9.0	42.41	7.07	49.48	163	15.1	0.641	0.7831	83	20.1E-06
Baseball	6/3.75	1/3.75	11.3	66.27	11.04	77.31	254	22.3	0.41	0.5010	83	20.1E-06
Bowls	6/4.75	7/1.60	14.3	106.32	14.07	120.4	385	32.7	0.259	0.3167	80	20.6E-06
Cricket	30/2.50	7/2.50	17.5	147.26	34.36	181.6	636	64.4	0.182	0.2225	88	20.6E-06
Darts	30/3.00	7/3.00	21.0	212.06	49.48	261.5	913	91.76	0.126	0.1542	88	20.6E-06
Dice	30/3.25	7/3.25	22.8	248.87	58.07	306.9	1070	106	0.108	0.1322	88	20.6E-06
Diving	30/3.50	7/3.50	24.5	288.63	67.35	356	1240	122	0.0928	0.1137	88	20.6E-06
Golf	54/3.00	7/3.00	27.0	381.70	49.48	431.2	1380	120	0.0726	0.0892	78	20.6E-06
Gymnastics	54/3.25	7/3.25	29.3	447.97	58.07	506	1620	139	0.0619	0.0763	78	20.6E-06
Hurdles	54/3.50	7/3.50	31.5	519.54	67.35	586.9	1880	159	0.0533	0.0659	78	20.6E-06
Lacrosse	54/3.75	19/2.25	33.8	596.41	75.55	672	2150	180	0.0465	0.0577	77	20.7E-06
Skating	3/1.75	4/1.75	5.3	7.22	9.62	16.84	83	12.3	2.75	3.3595	136	15.3E-06
Soccer	3/2.50	4/2.50	7.5	14.73	19.64	34.36	171	24.9	1.34	1.6370	136	15.3E-06
Swimming	4/3.00	3/3.00	9.0	28.27	21.21	49.48	218	28.9	0.807	0.9859	119	16.5E-06
Tennis	4/3.75	3/3.75	11.3	44.18	33.13	77.31	340	42.6	0.517	0.6316	119	16.5E-06

Current Ratings:

Code name	*Current carrying capacity, A							
	35°C ambient temperature				40°C ambient temperature			
	50°C operation temperature	60°C operation temperature	70°C operation temperature	75°C operation temperature	50°C operation temperature	60°C operation temperature	70°C operation temperature	75°C operation temperature
Angling	106	142	168	179	79	124	154	166
Aquatics	119	160	190	203	88	139	174	187
Archery	132	178	212	226	97	155	193	209
Baseball	173	236	281	300	126	205	257	278
Bowls	229	315	377	403	163	272	344	372
Cricket	285	395	475	508	198	341	432	469
Darts	354	497	600	642	242	427	545	592
Dice	389	548	662	710	262	470	602	654
Diving	425	602	728	781	284	516	661	720
Golf	488	696	844	906	321	595	766	834
Gymnastics	535	769	934	1002	347	656	847	923
Hurdles	583	842	1025	1101	372	717	929	1013
Lacrosse	630	916	1117	1200	397	779	1011	1104
Skating	57	75	89	95	43	66	81	88
Soccer	88	118	139	149	65	103	127	138
Swimming	118	159	189	201	87	138	172	186
Tennis	154	210	251	267	112	182	229	247

*Note: Current carrying capacity is based to the following conditions

- Frequency: 50Hz
- Solar absorption coefficient: 0.5
- Emissivity: 0.5
- Wind speed: 1.0m/s
- Solar radiation: 1000W/m²
- Current carrying capacity values calculated as per IEC 61597