



TANO

C A B L E

河南泰诺电缆有限公司

HENAN TANO CABLE CO.,LTD.



ACSR to BS EN 50182 STANDARD



TADCO

CABLES

Henan Tano Cable Co., Ltd.(Tano Cable for short), is a leading and professional manufacturer of cable and wire with more than 20 years' history and manufacturing experience, located in Zhengzhou city which is the capital of Henan province, China.

Tano Cable aims at providing integral power solution for international customers. We are working together as one company to provide products and technologies for building, maintaining and advancing the power and information infrastructures that connect the world. We mainly have the following products with strong competitiveness: All Aluminum Conductors (AAC), All Aluminum Alloy Conductors (AAAC), Aluminum Conductors Steel Reinforcement (ACSR) , Aerial Bundled Cables (ABC), building wire, welding cable, control cable, instrument cable, rubber cable, PVC insulated power cable, XLPE insulated power cable up to 500KV, customer-tailored cable and cable accessories, conforming to many different Country or international standard, such as IEC, HAR, BS, DIN, ICEA, ASTM, SABS, AS/NZS, JIS and so on.

Tano Cable pays great importance on the quality. We have strong teams and equipments for both production and inspection. Moreover, we have been awarded many certificates of ISO, CE, SONCAP, others from China and abroad. We keep improving our quality management system to meet the client's final satisfaction.

Tano Cable has provided services to the global clients who working in all areas of the energy, construction, industrial, specialty and communications market, and obtained the client's trust and compliment.

Welcome your any inquiry! Welcome your any visit! Welcome your any contact! We will take our biggest sincerity to be your long-term friend and partner.





Aluminum Conductor Steel reinforced (ACSR) Cables to BS EN 50182 Standard

APPLICATION

ACSR conductors are widely used for electrical power transmission over long distances, since they are ideal for long overhead lines spans. They are also used as a messenger for supporting overhead electrical cables.

STANDARD

Basic design to BS EN 50182 standard.

CONSTRUCTION

ACSR conductors are formed by several wires of aluminium and galvanized steel, stranded in concentric layers. The wire or wires which form the core, are made of galvanized steel and the external layer or layers, are of aluminium. Galvanized steel core consist normally of 1, 7 or 19 wires. The diameters of steel and aluminium wires can be the same, or different. By varying the relative proportions of aluminium and steel, the required characteristics for any particular application can be reached. A higher U. T. S. Can be obtained, by increasing steel content, and a higher current carrying capacity by increasing aluminium content.

ELECTRICAL PROPERTIES

Density@20°C	Aluminum: 2.703 kg/dm
	Galvanized Steel: 7.80 kg/dm
Temperature Coefficient@20°C	Aluminum: 0.00403 (°C)
Resistivity@20°C	Aluminum: Should not exceed 0.028264
Linear Expansivity	Aluminum: 23 x10 (°C)
	Galvanized Steel: 11.5 x10 (1/°C)

SERVICE CONDITIONS

Ambient Temperature	-5°C - 50°C
Wind Pressure	80 - 130kg/m ²
Seismic Acceleration	0.12 - 0.05g
Isokeraunic Level	10 - 18
Relative Humidity	5 - 100%

CONSTRUCTION PARAMETERS

Code	Stranding		Sectional Area			Overall Diameter	Weight	Breaking Load	Electrical Resistance @20°	Current Rating*
	AL	Steel	AL	Steel	Total					
	No. xmm	No. xmm	mm ²	mm ²	mm ²	mm	Kg/Km	KN	Ω/Km	A
Mole	6/1.50	1/1.50	10.6	1.77	12.4	4.5	42.8	4.14	2.7027	66
Squirrel	6/2.11	1/2.11	21	3.5	24.5	6.33	84.7	7.87	1.3659	101
Fox	6/2.79	1/2.79	36.7	6.11	42.8	8.37	148.1	13.21	0.7812	142
Mink	6/3.66	1/3.66	63.1	10.5	73.6	10.98	254.9	21.67	0.454	199
Skunk	12/2.59	7/2.59	63.2	36.9	100.1	12.95	463	52.79	0.4568	206
Beaver	6/3.99	1/3.99	75	12.5	87.5	11.97	302.9	25.76	0.382	221
Raccoon	6/4.09	1/4.09	78.8	13.1	91.9	12.27	318.3	27.06	0.3635	228
Otter	6/4.22	1/4.22	83.9	14	97.9	12.66	338.8	28.81	0.3415	237
Cat	6/4.50	1/4.50	95.4	15.9	111.3	13.5	385.3	32.76	0.3003	256
Hare	6/4.72	1/4.72	105	17.5	122.5	14.16	423.8	36.04	0.273	271
Coyote	26/2.54	7/1.91	131.7	20.1	151.8	15.89	520.7	45.66	0.2192	311
Cougar	18/3.05	1/3.05	131.5	7.31	138.8	15.25	418.8	29.74	0.2188	308
Tiger	30/2.38	7/2.38	131.2	30.8	161.8	16.52	602.2	57.87	0.2202	313
Lion	30/3.18	7/3.18	238.3	55.6	293.9	22.26	1093.4	100.47	0.1213	450
Bear	30/3.35	7/3.35	264.4	61.7	326.1	23.45	1213.4	111.5	0.1093	480
Goat	30/3.71	7/3.71	324.3	75.7	400	25.97	1488.2	135.13	0.0891	543
Sheep	30/3.99	7/3.99	375.1	87.5	462.6	27.93	1721.3	155.3	0.0771	592
Antelope	54/2.97	7/2.97	374.1	48.5	422.6	26.73	1413.8	118.88	0.0773	586
Bison	54/3.00	7/3.00	381.7	49.5	431.2	27	1442.5	121.3	0.0758	593
Deer	30/4.27	7/4.27	429.6	100.2	529.8	29.89	1971.4	179	0.0673	643
Elk	30/4.50	7/4.50	477.1	111.3	588.4	31.5	2189.5	198.8	0.0606	684
Camel	54/3.35	7/3.35	476	61.7	537.7	30.15	1798.8	146.4	0.0608	677
Moose	54/3.53	7/3.53	528.5	68.5	597	31.77	1997.3	159.92	0.0547	720

(*) Note: The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre², ambient temperature of 50° C & conductor temperature of 80°C.

TECHNICAL DATA

Numbers of Wires		Final Modulus of Elasticity		Coefficient of Linear Expansion	
Al	Steel	Kg/mm ²	lb/in ²	1/C°	1/F°
6	1	81	11.5 x10 ⁶	19.1 x10 ⁻⁶	10.6 x10 ⁻⁶
6	7	77	11.0 x10 ⁶	19.8 x10 ⁻⁶	11.0 x10 ⁻⁶
12	7	107	15.2 x10 ⁶	15.3 x10 ⁻⁶	8.5 x10 ⁻⁶
18	1	67	9.5 x10 ⁶	21.2 x10 ⁻⁶	11.8 x10 ⁻⁶
24	7	74	10.5 x10 ⁶	19.6 x10 ⁻⁶	10.9 x10 ⁻⁶
26	7	77	10.9 x10 ⁶	18.9 x10 ⁻⁶	10.5 x10 ⁻⁶
28	7	79	11.2 x10 ⁶	18.4 x10 ⁻⁶	10.2 x10 ⁻⁶
30	7	82	11.6 x10 ⁶	17.8 x10 ⁻⁶	9.9 x10 ⁻⁶
30	19	80	11.4 x10 ⁶	18.0 x10 ⁻⁶	10.0 x10 ⁻⁶
32	19	82	11.7 x10 ⁶	17.5 x10 ⁻⁶	9.7 x10 ⁻⁶
54	7	70	9.9 x10 ⁶	19.3 x10 ⁻⁶	10.7 x10 ⁻⁶
54	19	68	9.7 x10 ⁶	19.4 x10 ⁻⁶	10.8 x10 ⁻⁶



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河南泰诺电缆有限公司
HENAN TANO CABLE CO.,LTD.

Website: <http://www.tanocable.com/>

Tel.: 0086-371-60306197

Fax: 0086-371-60306197

Email: info@tanocable.com

Address: Zhengzhou City, Henan
Province, China.

Zip: 450000