GSW

Galvanized Steel Wire Strand(GSW)

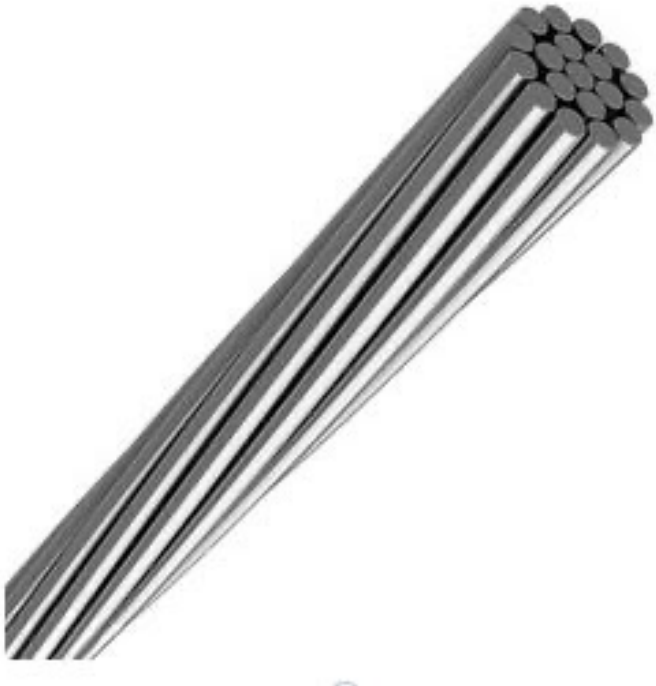
APPLICATIONS

Zinc-Coated steel wire is suitable for use as guys, messengers, stay wires, span wires, suspension of telecommunication cables, the earth wire/ground wire in overhead lines, barrier cable along the road or structure cable in construction, and for similar purposes

STANDARD

Produced according to standard IEC61089, ASTM A475, ASTM A363, BS183 or specific requirements from customers

Galvanized Steel Wire



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EES CABLE
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IEC61089

Nominal Area St	Code Number	Area	Number of Wires	Diameter		Liner Mass	Rated Strenghth				Max.D.C. Resistance at 20 ℃
				Wire	Cond.		S1A	S1B	S2A	S3A	
		mm2		mm	mm	kg/km	kn	kn	kn	kn	Ω/km
30	4	27.1	7	2.22	6.66	213.3	36.3	33.6	39.3	43.9	7.1445
40	6.3	42.7	7	2.79	8.36	335.9	55.9	51.7	60.2	67.9	4.5362
65	10	67.8	7	3.51	10.53	553.2	87.4	80.7	93.5	103	2.8578
85	12.5	84.7	7	3.93	11.78	666.5	109.3	100.8	116.9	128.8	2.2862
100	16	108.4	7	4.44	13.32	853.1	139.9	129	199.7	164.8	1.7861
100	16	108.4	19	2.7	13.48	857	142.1	131.2	152.9	172.4	1.7944
150	25	169.4	19	3.37	16.85	1339.1	218.6	201.6	238.9	262.6	1.1484
250	40	271.1	19	4.26	21.31	2141.6	349.7	322.6	374.1	412.1	0.7177
250	40	271.1	37	3.05	21.38	2148.1	349.7	322.6	382.3	420.2	0.7196
400	63	427	37	3.83	26.83	3383.2	550.8	508.1	589.3	649	0.4569

ASTM A475

Physical Properties of Zinc-Coated Steel Wire Strand

The numbers in boldface type indicate sizes and grades most commonly used and readily available

Nominal Diameter of Strand in.[mm]		Number of Wires in Strand	Nominal Diameter of Coated Wiresin Strand in.[mm]		Approximate Weight of Strand lb/1000 ft[kg/km]		Minimum Breaking Strength ofStrand , lbf[KN]											
							Common Grade			Siemens-Martin Grade			High-Strength Grade			Extra High-Strength Grade		
1/8	3.18	7	0.041	1.04	32	48	540	2.402		910	4.048	1	330	5.916	1	830	8.140
5/32	3.97	7	0.052	1.32	51	76	870	3.870	1	470	6.539	2	140	9.519	2	940	13.078
3/16	4.76	7	0.062	1.57	73	109	1	150	5.115	1	900	8.452	2	850	12.677	3	990	17.748
3/16	4.76	7	0.065	1.65	80	119												
7/32	5.56	3	0.104	2.64	88	131	1	400	6.228	2	340	10.409	3	500	15.569	4	900	21.796
7/32	5.56	7	0.072	1.83	98	146	1	540	6.850	2	560	11.387	3	850	17.126	5	400	24.020
1/4	6.35	3	0.120	3.05	117	174	1	860	8.274	3	40	13.523	4	730	21.040	6	740	29.981
1/4	6.35	3	0.120	3.05	117	174												
1/4	6.35	7	0.080	2.03	121	180	1	900	8.452	3	150	14.012	4	750	21.129	6	650	29.581
9/32	7.14	3	0.130	3.30	137	204	2	080	9.252	3	380	15.035	5	260	23.398	7	500	33.362
9/32	7.14	7	0.093	2.36	164	244	2	570	11.432	4	250	18.905	6	400	28.469	8	950	39.812
5/16	7.94	3	0.145	3.68	171	255	2	490	11.076	4	090	18.193	6	350	28.246	9	100	40.479
5/16	7.94	7	0.104	2.64	205	305	3	200	14.234	5	350	23.798	8	000	35.586	11	200	49.82
5/16	7.94	7	1.109	2.77	225	335												
3/8	9.52	3	0.165	4.19	220	328	3	330	14.813	5	560	24.732	8	360	37.187	11	800	52.489
3/8	9.52	7	0.120	3.05	273	407	4	250	18.905	6	950	30.915	10	800	48.040	15	400	68.503
7/16	11.11	7	0.145	3.68	399	595	5	700	25.355	9	350	41.591	14	500	64.499	20	800	92.523
1/2	12.70	7	0.165	4.19	517	770	7	400	32.917	12	100	53.823	18	800	83.627	26	900	119.657
1/2	12.70	19	0.100	2.54	504	751	7	620	33.895	12	700	56.492	19	100	84.961	26	700	118.768
9/16	14.29	7	0.188	4.78	671	1000	9	600	42.703	15	700	69.837	24	500	108.981	35	000	155.688
9/16	14.29	19	0.113	2.87	637	949	9	640	42.881	16	100	71.616	24	100	107.202	33	700	14.905
5/8	15.88	7	0.207	5.26	813	1211	11	600	51.599	19	100	84.961	29	600	131.667	42	400	188.605
5/8	15.88	19	0.125	3.18	796	1186	11	000	48.930	18	100	80.513	28	100	124.995	40	200	178.819
3/4	19.05	19	0.150	3.81	1 155	1721	16	000	71.172	26	200	116.543	40	800	181.487	58	300	259.331
7/8	22.22	19	0.177	4.50	1 581	2356	21	900	97.416	35	900	159.691	55	800	248.211	79	700	354.523
1	25.40	19	0.200	5.08	2 073	3089	28	700	127.664	47	000	209.066	73	200	325.610	104	500	464.839
1	25.40	37	0.143	3.63	2 057	3065	28	300	125.885	46	200	205.508	71	900	319.827	102	700	456.832
11/8	28.58	37	0.161	4.09	2 691	4010	36	000	160.136	58	900	262.000	91	600	407.457	130	800	581.827
11/4	31.75	37	0.179	4.55	3 248	4840	44	600	198.391	73	000	324.720	113	600	505.318	162	200	721.502

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ASTM A363

Physical propertles of Zinc- coated steel Overhead Ground Wire Strand													
Nominal Diameter of Strand.		Number of Wires in Strand	Nominal Diameter of Coated Wire in Strand.		Approximate Weight of Strand.		Minimum Breaking Strength of Strand, lbf(KN)					
In.	mm		in.	mm	lb/1000ft	kg/km	High-Strength Grade		Extra-High- Strength Grade		Utilities Grade	
5/16	7.94	3	0.145	3.68	171	255	...	...	...	...	6500	28.9
5/16	7.94	7	0.104	2.64	205	305	8000	35.6	11200	49.8		...
3/8	9.52	7	0.12	3.05	273	407	10800	48	15400	68.4	11500	51.2
7/16	11.11	7	0.145	3.68	399	595	14500	64.5	20800	92.5	...	...
1/2	12.7	7	0.165	4.19	517	770	18800	83.6	26900	119.6	...	...

BS 183

Construcrion Number of wores/ wire diamerer	Approximate strand diamerer	Minimum breaking load ofstrand							Approx. Mass
		Grade350	Grade480	Grade700	Grade850	Grade1000	Grade1150	Grade1300	
	mm	KN	KN	KN	KN	KN	KN	KN	kg/1000m
7/0.56	1.7	0.60	0.83	1.20	--	1.70	1.98	2.24	14
7/0.71	2.1	0.97	1.33	1.94	--	2.75	3.19	3.60	28
7/0.85	2.6	1.39	1.90	2.80	--	3.95	4.57	5.15	31
7/0.90	2.7	1.55	2.14	3.10	--	4.45	5.12	5.80	35
7/1.00	3.0	1.92	2.64	3.85	--	5.50	6.32	7.15	43
7/1.25	3.8	3.01	4.10	6.00	--	8.55	9.88	11.15	67
7/1.40	4.2	3.75	5.17	7.54	9.16	10.75	12.35	14.00	84
7/RS	4.3	3.85	5.28	7.70	9.35	11.00	12.65	14.30	86
7/1.60	4.8	4.90	6.75	9.85	11.95	14.10	16.20	18.30	110
7/1.80	5.4	6.23	8.55	12.45	--	17.80	20.50	23.20	140
7/2.00	6.0	7.70	10.55	15.40	--	22.00	25.30	38.60	170
7/2.36	7.1	10.70	14.70	21.40	--	30.60	35.20	39.80	240
7/2.65	8.0	13.50	18.50	27.00	--	38.60	44.40	50.20	300
7/3.00	9.0	17.30	23.75	34.65	--	49.50	56.90	64.30	392
7/3.15	9.5	19.10	26.20	38.20	--	54.55	62.75	70.90	430
7/3.25	9.8	20.30	27.85	40.65	--	58.05	66.80	75.50	460
7/3.65	11.0	25.60	35.15	51.25	--	73.25	84.20	95.20	570
7/4.00	12.0	30.90	42.20	61.60	--	88.00	101.0	114.0	690
7/4.25	12.8	34.75	47.65	69.50	--	99.30	114.0	129.0	780
7/4.75	14.0	43.40	59.45	86.80	--	124.0	142.7	161.3	970
19/1.00	5.0	5.22	7.16	10.45	--	14.92	17.16	19.40	120
19/1.25	6.3	8.16	11.19	16.32	--	23.32	26.81	30.31	180
19/1.40	7.0	10.24	14.04	20.47	--	29.25	33.64	38.02	230
19/1.60	8.0	13.37	18.34	26.75	--	38.20	43.93	49.66	300
19/2.00	10.0	20.90	28.65	41.78	50.74	59.69	68.64	77.60	470
19/2.50	12.5	32.65	44.80	65.29	79.28	93.27	107.3	121.3	730
19/3.00	15.0	47.00	64.50	94.00	114.1	134.3	154.5	174.6	1050
19/3.55	17.8	65.80	90.27	131.6	159.9	188.0	216.3	244.5	1470
19/4.00	20.0	83.55	114.6	167.1	203.0	238.7	274.6	310.4	1870
19/4.75	23.8	117.85	161.6	235.7	286.0	336.7	387.2	437.7	2630