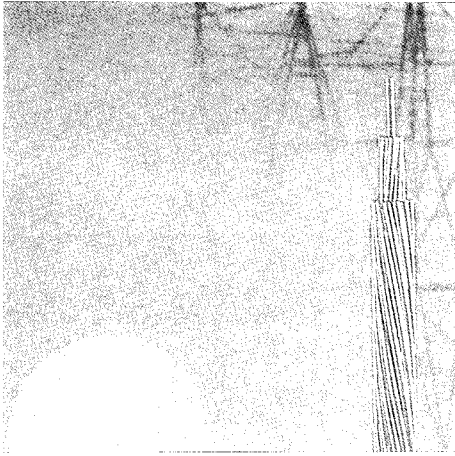




Conductors for Lightning Protection & Grounding System

- Bare Copper Wire
- PVC Insulated Grounding Wire(GV)
- Copper Clad Steel Wire
- Copper Tape

Bare Copper Wires 나동선류

Hard-Drawn Copper Solid Wire for Electrical Purpose

전기용 경동선

지름 Diameter mm	지름허용공차 Tolerance of Diameter ±mm	단면적 Cross Sectional Area mm ²	표준무게 Standard Weight kg/km	최대도체저항 Maximum Resistance at 20°C Ω/km	최소도전율 Minimum Conductivity at 20°C %	인장하중 Tensile Load kg	인장강도 Tensile Strength kg/mm ²	신장율 Elongation in 250mm %
12.0	0.06	113.10	1,005	0.1572	97.0	3,830	33.9	3.12
10.0	0.06	78.54	698.2	0.2263	97.0	2,840	36.1	2.64
9.0	0.06	63.62	565.6	0.2794	97.0	2,370	37.2	2.40
8.0	0.06	50.27	446.9	0.3536	97.0	1,930	38.3	2.16
7.0	0.06	38.48	342.1	0.4619	97.0	1,520	39.4	1.92
6.5	0.06	33.18	295.0	0.5357	97.0	1,330	40.0	1.80
6.0	0.06	28.27	251.3	0.6287	97.0	1,140	40.5	1.68
5.5	0.04	23.76	211.2	0.7481	97.0	977	41.1	1.56
5.0	0.04	19.64	174.6	0.9050	97.0	817	41.6	1.44
4.5	0.04	15.90	141.4	1.118	97.0	671	42.2	1.32
4.3	0.04	14.52	129.1	1.224	97.0	616	42.4	1.27
4.0	0.04	12.57	111.7	1.414	97.0	537	42.7	1.20
3.7	0.04	10.75	95.57	1.653	97.0	462	43.0	1.13
3.5	0.04	9.621	85.53	1.847	97.0	416	43.2	1.08
3.2	0.04	8.042	71.49	2.210	97.0	351	43.6	1.01
2.9	0.03	6.605	58.72	2.691	97.0	290	43.9	0.94
2.6	0.03	5.309	47.20	3.348	97.0	235	44.2	0.86
2.3	0.03	4.155	36.94	4.278	97.0	185	44.6	0.79
2.0	0.03	3.142	27.93	5.657	97.0	141	44.9	0.72
1.8	0.03	2.545	22.63	7.057	96.0	115	45.1	0.67
1.6	0.03	2.011	17.88	8.930	96.0	91.1	45.3	0.62
1.4	0.03	1.539	13.68	11.67	96.0	70.2	45.6	0.58
1.2	0.03	1.131	10.05	15.89	96.0	51.8	45.8	0.53
1.0	0.03	0.7854	6.982	22.87	96.0	36.1	46.0	0.48
0.90	0.02	0.6362	5.656	28.23	96.0	29.3	46.1	0.46
0.80	0.02	0.5027	4.469	35.72	96.0	23.2	46.2	0.43
0.70	0.02	0.3848	3.421	46.67	96.0	17.8	46.3	0.41
0.65	0.02	0.3318	2.950	54.13	96.0	15.4	46.4	0.40
0.60	0.02	0.2827	2.513	63.53	96.0	13.1	46.4	0.38
0.55	0.02	0.2376	2.112	75.59	96.0	11.0	46.5	0.37

• Tin coated types are available on request.

Hard-Drawn Copper Stranded Wire for Electrical Purpose 전기용 경동연선

For General Purpose 일반용 (1종)

공칭단면적 Nominal Sectional Area mm ²	소선수/소선경 Number & Diameter of Wires No./mm	계산단면적 Calculated Area mm ²	완성품외경 Approx Over all Diameter mm	표준무게 Standard Weight kg/km	계산저항 Calculated Resistance at 20°C Ω/km	최소인장하중 Minimum Tensile Load kg
1,000	127/3.2	1,021	41.6	9,315	0.0179	40,060
850	127/2.9	838.8	37.7	7,651	0.0217	33,150
725	91/3.2	731.8	35.2	6,655	0.0248	28,710
600	91/2.9	601.1	31.9	5,466	0.0303	23,750
500	61/3.2	490.6	28.8	4,448	0.0370	19,240
400	61/2.9	402.9	26.1	3,654	0.0450	15,920
325	61/2.6	323.8	23.4	2,937	0.0560	12,900
250	61/2.3	253.5	20.7	2,298	0.0715	10,170
200	37/2.6	196.4	18.2	1,776	0.0920	7,820
150	37/2.3	153.7	16.1	1,390	0.118	6,160
125	19/2.9	125.5	14.5	1,129	0.143	4,950
100	19/2.6	100.9	13.0	907.6	0.178	4,010
80	19/2.3	78.95	11.5	710.3	0.228	3,160
60	19/2.0	59.70	10.0	537.0	0.301	2,410
50	19/1.8	48.36	9.0	435.1	0.376	1,960
38	7/2.6	37.16	7.8	334.4	0.484	1,480
30	7/2.3	29.09	6.9	261.7	0.618	1,160
22	7/2.0	21.99	6.0	197.9	0.818	898
14	7/1.6	14.08	4.8	126.7	1.29	574
8.0	7/1.2	7.917	3.6	71.19	2.30	326

For Overhead Transmission Purpose 가공송전선용 (2종)

공칭규격 Nominal Sectional Area mm ²	소선수/소선경 Number & Diameter of Wires No./mm	계산단면적 Calculated Area mm ²	완성품외경 Approx Overall Diameter mm	표준무게 Standard Weight kg/km	계산저항 Calculated Resistance at 20°C Ω /km	최소인장하중 Minimum Tensile Load kg
240	19/4.0	238.8	20.0	2,148	0.0753	9,170
200	19/3.7	204.3	18.5	1,838	0.0880	7,910
180	19/3.5	182.8	17.5	1,645	0.0984	7,110
150	19/3.2	152.8	16.0	1,375	0.188	5,990
125	19/2.9	125.5	14.5	1,129	0.143	4,950
100	7/4.3	101.6	12.9	914.5	0.177	3,870
75	7/3.7	75.25	11.1	677.0	0.239	2,910
55	7/3.2	56.29	9.6	506.4	0.320	2,200
45	7/2.9	46.24	8.7	416.0	0.389	1,820
38	7/2.6	37.16	7.8	334.4	0.484	1,480
30	7/2.3	29.09	6.9	261.7	0.618	1,160
22	7/2.0	21.99	6.0	197.0	0.818	889

● Tin coated types are available on request.

전기용 연동선

Annealed Copper Solid Wire for Electrical Purpose(A)

Diameter mm	Tolerance ± mm	Calculated Area mm ²	Weight kg/mm	Max. Conductor Resistance at 20°C Ω/km	Max. Resistivity at 20°C Ω, mm ² /km	Tensile Load kg	Tensile Elongation Strength kg/mm ²	Elongation %	Weight	
									kg/piece	kg/reel
12.0	0.06	113.1	1,005	0.1524	17.241	2,830	25.0	35.0	90(coil)	—
10.0	0.06	78.54	698.2	0.2195	17.241	1,960	25.0	35.0	90 "	—
9.0	0.06	63.62	565.6	0.2710	17.241	1,590	25.0	35.0	90 "	—
8.0	0.06	50.27	446.9	0.3430	17.241	1,260	25.0	35.0	90 "	—
7.0	0.06	38.48	342.1	0.4481	17.241	1,000	26.0	30.0	90 "	—
6.5	0.06	33.18	295.0	0.5196	17.241	863	26.0	30.0	90 "	—
6.0	0.06	28.27	251.3	0.6099	17.241	735	26.0	30.0	90 "	—
5.5	0.04	23.76	211.2	0.7356	17.241	618	26.0	30.0	90 "	—
5.0	0.04	19.64	174.6	0.8779	17.241	511	26.0	30.0	80 "	—
4.5	0.04	15.90	141.4	1.084	17.241	413	26.0	30.0	80 "	—
4.0	0.04	12.57	111.7	1.372	17.241	327	26.0	30.0	80 "	—
3.5	0.04	9.621	85.53	1.792	17.241	250	26.0	30.0	80 "	—
3.2	0.04	8.042	71.49	2.144	17.241	209	26.0	30.0	80 "	—
2.9	0.03	6.605	58.72	2.610	17.241	172	26.0	30.0	80 "	—
2.6	0.03	5.309	47.20	3.248	17.241	143	27.0	30.0	60 "	—
2.3	0.03	4.155	36.94	4.149	17.241	112	27.0	30.0	60 "	—
2.0	0.03	3.142	27.93	5.487	17.241	84.8	27.0	30.0	60 "	—
1.8	0.03	2.545	22.63	6.774	17.241	68.7	27.0	25.0	60 "	—
1.6	0.03	2.011	17.88	8.573	17.241	54.3	27.0	25.0	25 "	—
1.4	0.03	1.539	13.68	11.20	17.241	41.6	27.0	25.0	25 "	—
1.2	0.03	1.131	10.05	15.24	17.241	31.7	28.0	25.0	25 "	—
1.0	0.03	0.7854	6.982	21.95	17.241	22.0	28.0	25.0	25 "	—
0.90	0.02	0.6362	5.656	27.10	17.241	17.8	28.0	25.0	20 "	—
0.80	0.02	0.5027	4.469	34.30	17.241	14.1	28.0	25.0	20 "	—
0.70	0.02	0.3848	3.421	44.81	17.241	10.8	28.0	20.0	15 "	—
0.65	0.02	0.3318	2.950	51.96	17.241	9.29	28.0	20.0	15 "	—
0.60	0.02	0.2827	2.513	60.99	17.241	7.92	28.0	20.0	15 "	—
0.55	0.02	0.2376	2.112	72.56	17.241	6.65	28.0	20.0	15 "	—
0.50	0.01	0.1964	1.746	87.79	17.241	5.50	28.0	20.0	10 "	—
0.45	0.01	0.1590	1.414	109.2	17.241	—	—	20.0	10 "	—
0.40	0.01	0.1257	1.117	138.1	17.363	—	—	20.0	10 "	—
0.35	0.01	0.09621	0.8553	180.5	17.363	—	—	20.0	10 "	—
0.32	0.01	0.08042	0.7149	215.9	17.363	—	—	20.0	3(reel)	3.5
0.29	0.01	0.06605	0.5872	266.4	17.415	—	—	20.0	1 "	1.2
0.26	0.01	0.05309	0.4720	331.4	17.415	—	—	15.0	1 "	1.2
0.23	0.008	0.04155	0.3694	423.4	17.415	—	—	15.0	1 "	1.2
0.20	0.008	0.03142	0.2793	559.9	17.415	—	—	15.0	1 "	1.2
0.18	0.008	0.02545	0.2263	691.3	17.415	—	—	15.0	1 "	1.2
0.16	0.008	0.02011	0.1788	691.3	17.415	—	—	15.0	1 "	1.2
0.14	0.008	0.01539	0.1368	1,143.0	17.415	—	—	15.0	1 "	1.2
0.12	0.008	0.01131	0.1005	1,556.0	17.415	—	—	15.0	1 "	1.2
0.10	0.008	0.007854	0.06982	2,240.0	17.415	—	—	15.0	1 "	1.2
0.08	0.008	0.005026	0.04468	3,500.6	17.415	—	—	10.0	1 "	1.2

전기용 연동연선

Annealed Copper Stranded Wire for Electrical Purpose(AS)

Nominal Sectional Area mm ²	No. & Dia of Wire No./mm	Calculated Sectional Area mm ²	Overall Diameter mm	Weight kg/km	Max. Conductor Resistance at 20°C Ω/km	Length m/reel	Weight kg/reel
1,000	127/3.2	1,021	41.6	9,315	0.0173	300	3,380
850	127/2.9	838.8	37.7	7,651	0.0211	300	2,880
725	91/3.2	731.8	35.2	6,665	0.0241	300	2,560
600	91/2.9	601.1	31.9	5,466	0.0293	300	2,010
500	61/3.2	490.6	28.8	4,448	0.0359	300	1,630
400	61/2.9	402.9	26.1	3,654	0.0436	300	1,310
325	61/2.6	323.8	23.4	2,937	0.0543	300	1,070
250	61/2.3	253.5	20.7	2,298	0.0694	300	805
200	37/2.6	196.4	18.2	1,776	0.0893	500	1,020
150	37/2.3	153.7	16.1	1,390	0.114	600	945
125	19/2.9	125.5	14.5	1,129	0.139	600	765
100	19/2.6	100.9	13.0	907.6	0.173	600	625
80	19/2.3	78.95	11.5	710.3	0.221	1,000	795
60	19/2.0	59.70	10.0	537.0	0.292	1,000	605
50	19/1.8	48.36	9.0	435.1	0.361	1,000	480
38	7/2.6	37.16	7.8	334.4	0.470	300	—
30	7/2.3	29.09	6.9	261.7	0.600	300	—
22	7/2.0	21.99	6.0	197.9	0.793	300	—
14	7/1.6	14.08	4.8	126.7	1.24	500	—
8	7/1.2	7.917	3.6	71.19	2.20	500	—
5.5	7/1.0	5.498	3.0	49.46	3.17	500	—
3.5	7/0.8	3.519	2.4	31.66	4.96	500	—
2.0	7/0.6	1.979	1.8	17.80	8.82	500	—
1.4	7/0.5	1.357	1.5	12.37	12.7	500	—
1.25	7/0.45	1.113	1.35	10.20	15.8	500	—
0.9	7/0.4	0.799	1.2	7.913	20.0	500	—

PVC Insulated Grounding wire (GV) 접지용 비닐절연전선

전기기기의 접지용으로 사용한다.

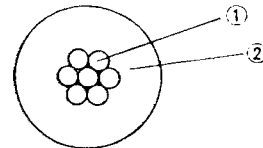
This wire is used for grounding of electric apparatus.

● 구 조

1. 도 체 : 전기용 연동선
2. 절 연 체 : PVC
3. 절연체색 : 녹색

● Construction

1. Conductor : Annealed copper wire
2. Insulation : PVC
3. Colour of the insulation : green



① 도 체 ① Conductor
② 절연체 ② Insulation

단선도체 Solid Conductor

Diameter mm	Conductor Diameter mm	Insulation Thickness mm	Approx. Overall Diameter mm	Max. Conductor Resistance at 20°C Ω/km	Test Voltage V/1 min.	Min. Insulation Resistance at 20°C MΩ · km	Approx. Weight kg/km	Standard Length m
1.0	1.0	2.3	5.6	22.8	1,500	50	40	300
1.2	1.2	2.3	5.8	15.8	1,500	50	45	300
1.6	1.6	2.3	6.2	8.92	1,500	50	60	300
2.0	2.0	2.3	6.6	5.65	1,500	50	85	300
2.6	2.6	2.5	7.6	3.35	1,500	50	105	300
3.2	3.2	2.7	8.6	2.21	1,500	50	140	300

**PVC-insulated, Non-sheathed General Purpose Cable, 450/750V, Single Core
BS6004/1995(Rigid Conductor)**

Conductor		Radial Thick. of Insulation	Conductor DIA.	Approx. Weight	Standard Length		Max. Resistance of Conductor at 20°C	Min. Insulation Resistance at 70°C	Test Voltage for 15 minutes
Nominal Cross Sectional Area	No. & Nominal Dia. of Wire								
mm ²	mm	mm	mm	kg/km	m		Ω/km	MΩ · km	kV
1.5	7/0.53	0.7	1.59	19.7	C	300	12.1	0.010	2.5
2.5	7/0.67	0.8	2.01	32.9	C	300	7.41	0.009	2.5
4	7/0.85	0.8	2.55	49.0	C	300	4.61	0.0077	2.5
6	7/1.04	0.8	3.12	69.4	C	300	3.08	0.0065	2.5
10	7/1.35	1.0	4.05	116.0	C	300	1.83	0.0065	2.5
16	7/1.70	1.0	5.10	176.0	C	300	1.15	0.0050	2.5
25	7/2.14	1.2	6.42	276.0	C	300	0.727	0.0050	2.5
35	7/2.52	1.2	7.56	368.0	C	300	0.524	0.0043	2.5
50	19/1.78	1.4	8.90	499.0	D	1,000	0.387	0.0043	2.5
70	19/2.14	1.4	10.70	703.0	D	1,000	0.268	0.0035	2.5
95	19/2.52	1.6	12.60	972.0	D	1,000	0.193	0.0035	2.5
120	37/2.03	1.6	14.21	1,210.0	D	500	0.153	0.0032	2.5
150	37/2.25	1.8	15.75	1,490.0	D	500	0.124	0.0032	2.5
185	37/2.52	2.0	17.64	1,870.0	D	500	0.0991	0.0032	2.5
240	61/2.25	2.2	20.25	2,450.0	D	500	0.0754	0.0032	2.5
300	61/2.52	2.4	22.68	3,060.0	D	500	0.0601	0.0030	2.5
400	61/2.85	2.6	25.65	3,900.0	D	500	0.0470	0.0028	2.5

* C : Coil, D : Wooden Drum

■ **Construction**

Conductor : Annealed copper conductor,
Class 2 stranded conductor
Insulation : PVC

■ **Colour** : Green / Yellow

연선회 Stranded Conductor

Nominal Sectional Area mm ²	Conductor		Insulation Thickness mm	Approx. Overall Diameter mm	Max. Conductor Resistance at 20°C Ω/km	Test Voltage V	Min. Insulation Resistance at 20°C MΩ · km	Approx. Weight kg/km	Standard Length m
	No./Dia.	Outer Diameter							
	Shape	mm							
2.0	7/0.6	1.8	2.3	6.4	9.24	1,500	50	65	300
3.5	7/0.8	2.4	2.3	7.0	5.20	1,500	50	85	300
5.5	7/1.0	3.0	2.5	8.0	3.33	1,500	50	115	300
8	7/1.2	3.6	2.7	9.0	2.31	1,500	50	155	300
	C.C.	3.4	2.7	8.8	2.29	1,500	50	150	300
14	7/1.6	4.8	2.9	11.0	1.30	2,000	40	235	300
	C.C.	4.4	2.9	10.5	1.31	2,000	40	225	300
22	7/2.0	6.0	3.1	12.5	0.824	2,000	40	335	300
	C.C.	5.5	3.1	12.0	0.832	2,000	40	325	300
38	7/2.6	7.8	3.3	14.5	0.487	2,500	30	515	300
	C.C.	7.3	3.3	14.0	0.481	2,500	30	505	300
60	19/2.0	10.0	3.3	17.0	0.303	2,500	30	750	300
	C.C.	9.3	3.3	16.0	0.305	2,500	30	725	300
100	19/2.6	13.0	3.5	20.0	0.180	2,500	30	1,270	300
	C.C.	12.0	3.5	19.0	0.183	2,500	30	150	300
150	37/2.3	16.1	3.8	24.0	0.118	3,000	20	1,760	200
	C.C.	14.7	7.8	23.0	0.122	3,000	30	1,660	200
200	37/2.6	18.2	4.1	27.0	0.0922	3,000	30	2,220	200
	C.C.	17.0	4.1	26.0	0.0915	3,000	30	2,170	200
250	61/2.3	20.7	4.2	30.0	0.0722	3,000	30	2,810	200
	C.C.	19.0	4.2	28.0	0.0739	3,000	30	2,670	200
325	61/2.6	23.4	4.5	33.0	0.0565	3,000	30	3,550	150
	C.C.	21.7	4.5	31.0	0.0568	3,000	30	3,430	150
400	61/2.9	26.1	4.7	36.0	0.0454	3,500	20	4,360	150
	C.C.	24.1	4.6	34.0	0.0462	3,500	20	4,160*	150
500	61/3.2	28.8	5.0	39.0	0.0373	3,500	20	5,290	100
	C.C.	26.9	4.9	37.0	0.0369	3,500	20	5,200	100
600	91/2.9	31.9	5.3	43.0	0.0304	3,500	20	6,400	100
	C.C.	29.5	5.2	40.0	0.0308	3,500	20	6,180	100
800	127/2.8	36.4	5.7	48.0	0.0234	3,500	20	8,450	100
	C.C.	34.0	5.6	46.0	* 0.231	3,500	20	8,140	100
1,000	127/3.2	41.6	5.9	54.0	0.0179	3,500	20	10,500	100
	C.C.	38.0	5.8	51.0	* 0.0187	3,500	20	10,100	100

주 : C.C.; Compact Round Stranded Conductor.

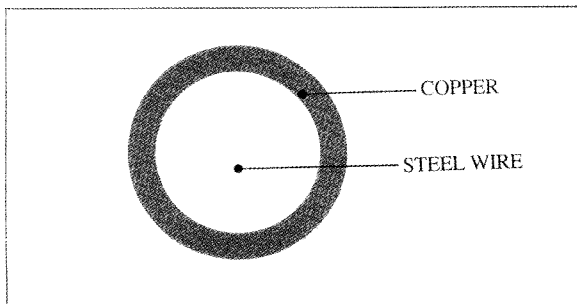
* ; Segmental Compact.

COPPER CLAD STEEL WIRE

COPPER CLAD STEEL WIRE is the name of steel wire which has the strength and toughness combined with conductivity and corrosion-resistance of copper. It is closely plated with uniform layer of pure copper by an advanced continuous electroplating process.

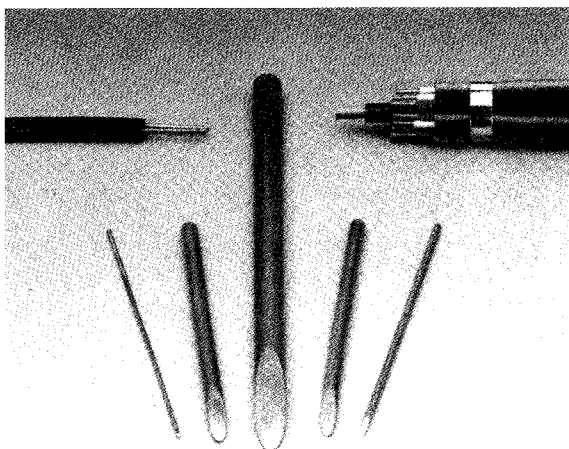
Stranded conductors and single conductors are made in a variety of size and type to meet specific needs as per ANSI/ASTM B227, B228, B229, B452 & BS 4087 for power distribution, transmission and telecommunication.

Due to their unique characteristics, conductors are used for single bonds to complete the electrical circuit for long spans crossing mountains and rivers for telecommunication over-head line. It is also called copper covered steel wire, copper coated steel wire, copper ply, copper plated steel wire, steel cored copper wire and copper-weld wire in different name.



CHARACTERISTICS

- Steel wire closely clad with uniform layer of pure copper.
- High tensile strength.
- Extremely corrosion-resistance.
- Lightweight.
- Powerful distribution and transmission.
- Low-cost in construction.
- High frequency (or Attenuation) characteristics.
- Lower maintenance expenses.



USE

- Messenger wire.
- Bare wire for transmission and distribution.
- Telephone drop wire & Rural distribution wire.
- Leadwire for electronics.
- Signal and message carrying wire for railroad.
- Self supporting distribution wire.
- Jewellery chain, piano string covering, pipe insulation wire, TV antenna wire, bind wire, barbed wire, fence, spring wire, etc.
- High frequency coaxial cable.

QUALITY

COPPER CLAD STEEL WIRE comply with the following essential requirements.

- TENSILE STRENGTH : The minimum breaking load of the wire when tested in accordance with BS 18 'Methods for tensile testing of metals' comply with the appropriate value given in specification Table.
The rate of separation of the testing machine jaws is between 50 and 100 mm per minute.
- TORSION STRENGTH : The wire withstand, without sign of failure, a minimum of 20 twists on a length equivalent to 100 diameters.
When continued until fracture occurs, the copper coating shall not separate from the steel core.
- FERROXYL PERFORMANCE : When tested in accordance with BS 4087, CL 10.1, it show no blue discolouration in a solution of potassium ferricyanide and sulphuric acid.

TYPE DESIGNATION FOR ORDERING

COPPER CLAD STEEL WIRE are two grades of conductivity and two of tensile strength as well as the size tolerances, for a range of preferred wire sizes.

For example : 1.02 mm, Grade 2 wire for 40% conductivity.

1.02 mm : Grade : 40%

MECHANICAL & ELECTRICAL PROPERTIES

Nominal size		Resistance at 20°C		Copper thickness		Nominal weight	Breaking load minimum			
Diameter		maximum		minimum			Grade 1		Grade 2	
		30% con-ductivity	40% con-ductivity	30% con-ductivity	40% con-ductivity		30% con-ductivity	40% con-ductivity	30% con-ductivity	40% con-ductivity
mm	in	ohm/km	ohm/km	mm	mm	kg/km	kg	kg	kg	kg
4.88	0.192	3.138	2.354	0.28	0.44	152.2	1615	1457	1917	-
4.62	0.182	3.494	2.622	0.27	0.42	136.7	1474	1333	1775	-
4.47	0.176	3.734	2.801	0.26	0.40	128.0	1380	1266	1662	-
4.06	0.160	4.518	3.389	0.23	0.37	105.7	1186	1077	1437	-
3.66	0.144	5.577	4.183	0.21	0.33	85.63	997	909	1211	-
3.25	0.128	7.060	5.295	0.19	0.29	67.67	817	747	992	-
2.95	0.116	8.594	6.450	0.17	0.26	55.55	695	638	834	-
2.90	0.114	8.836	6.630	0.17	0.26	54.06	676	621	812	-
2.64	0.104	10.69	8.022	0.15	0.24	44.65	582	534	674	601
2.59	0.102	11.14	8.357	0.15	0.23	42.87	558	513	662	576
2.34	0.092	13.66	10.25	0.13	0.21	34.98	455	418	541	469
2.03	0.080	18.08	13.56	0.12	0.18	26.43	367	349	408	379
1.83	0.072	22.31	16.74	0.10	0.16	21.38	283	259	314	286
1.63	0.064	28.25	21.19	0.10	0.15	16.83	223	204	248	226
1.42	0.056	36.87	27.64	0.08	0.13	12.94	171	156	190	173
1.22	0.048	50.19	37.66	0.07	0.11	9.498	125	115	139	127
1.14	0.045	56.50	42.35	0.07	0.10	8.458	112	102	124	113
1.02	0.040	72.33	54.23	0.06	0.09	6.623	87	80	97	88
0.91	0.036	89.29	66.98	0.05	0.08	5.350	71	65	78	72
0.81	0.032	113.3	84.94	0.05	0.07	4.219	56	51	62	56
0.71	0.028	147.5	110.7	0.04	0.06	3.230	43	39	48	43
0.61	0.024	200.8	150.7	0.04	0.06	2.388	31	29	35	32
0.56	0.022	239.0	179.3	0.03	0.05	1.993	26	24	29	27
0.51	0.020	289.2	217.0	0.03	0.05	1.652	22	20	24	22

MECHANICAL & ELECTRICAL PROPERTIES

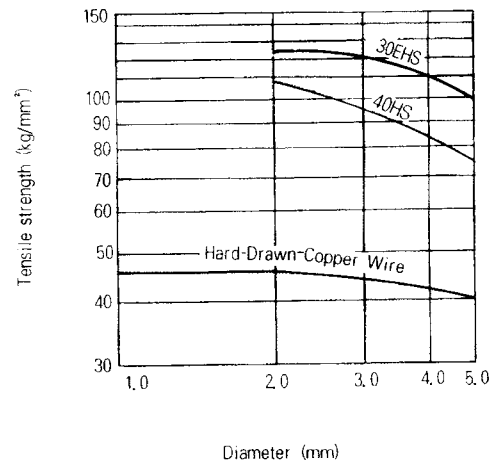
Nominal wire diameter		Tolerance
Over	Up to and including	
mm	mm	mm
-	1.27	± 0.013
1.27	2.54	± 0.025
2.54	-	± 1% of the diameter

	30% nominal conductivity	40% nominal conductivity
Resistivity ohm, mm ² /m	0.05862	0.04396
Resistivity ohm, circular mil/ft	35.26	26.45

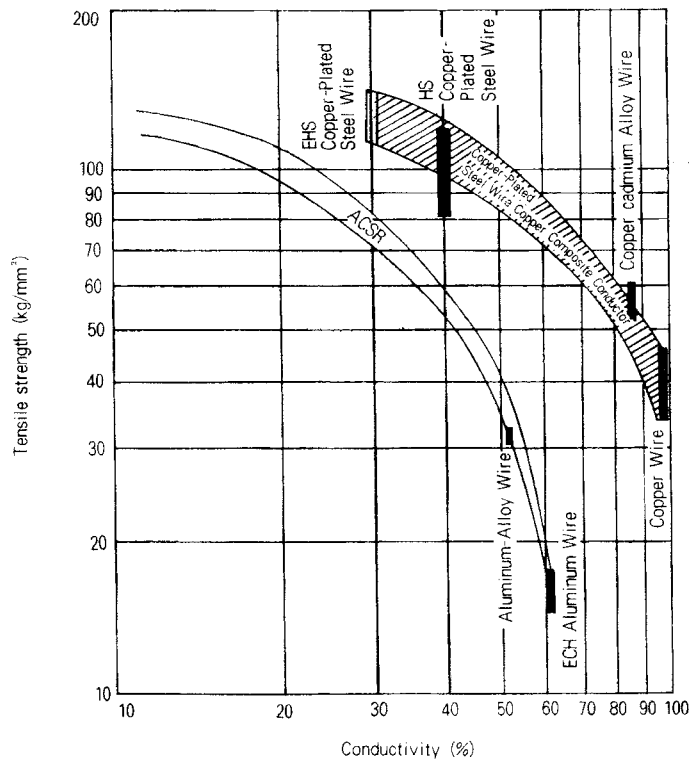
PHYSICAL PROPERTIES

	Conduc- tivity maximum (20℃)	Resis- tivity maximum (20℃)	Coefficient of thermal resistivity (20℃)	Specific gravity (20℃)	Modulus of elasti- city	Coefficient of linear expansion
	%	ohm mm ² /km	-	-	kg/mm ²	10 ⁻⁶ /℃
40% conductivity C.P.S Wire	39.2	43.983	0.0038	8.20	17,500	13
30% conductivity C.P.S Wire	29.4	58.644	0.0038	8.15	18,000	13
20% conductivity C.P.S Wire	19.6	87.966	0.0038	8.00	20,000	13
Hard-Drawn Copper Wire	96-98	17.59 ~17.96	0.00385 ~0.00377	8.89	11,000	17

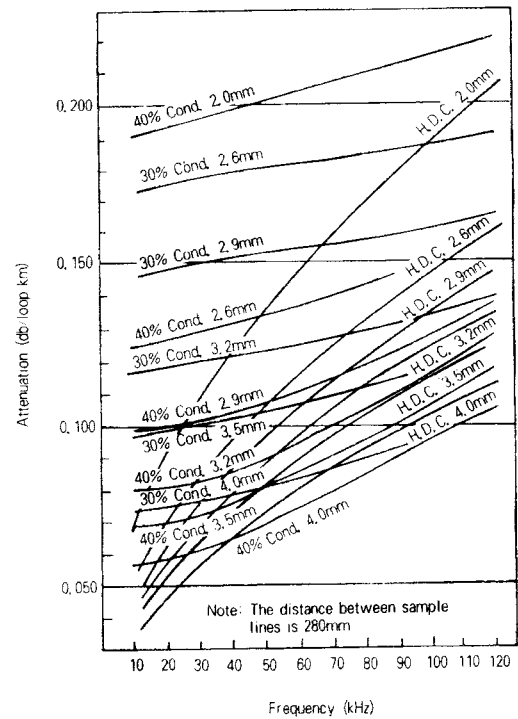
DIAMETER VS. TENSILE STRENGTH



TENSILE STRENGTH VS. CONDUCTIVITY OF VARIOUS BARE CONDUCTORS



ATTENUATION CHARACTERISTICS

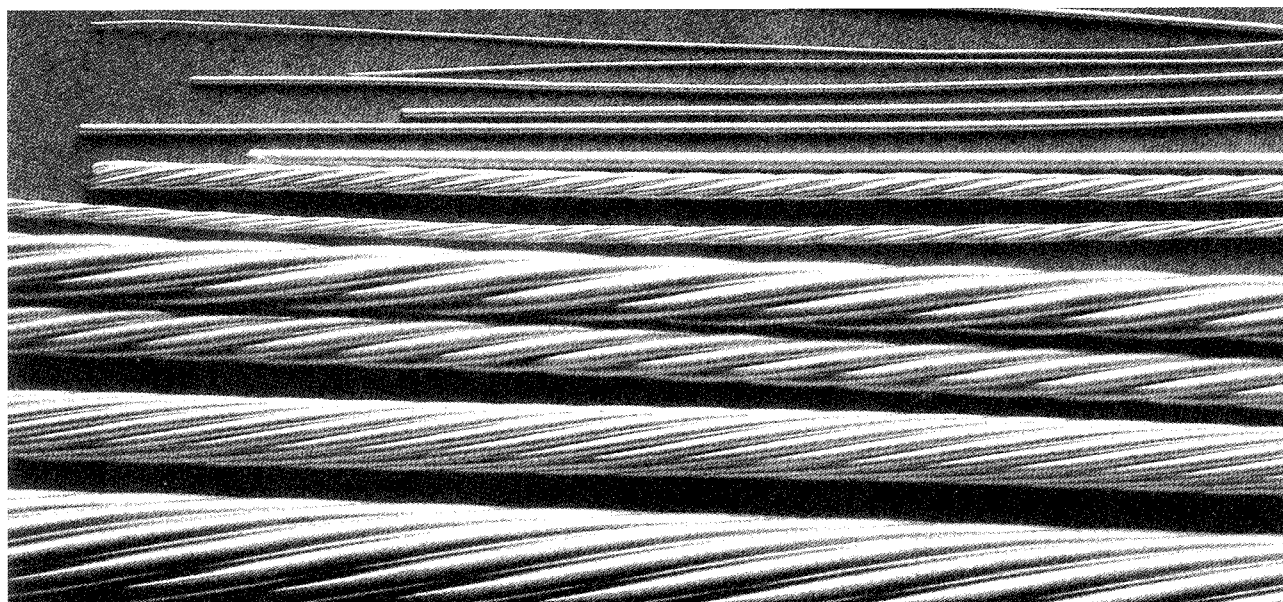


STRANDED, COPPER CLAD STEEL WIRE ACCORDING TO ASTM B228-81

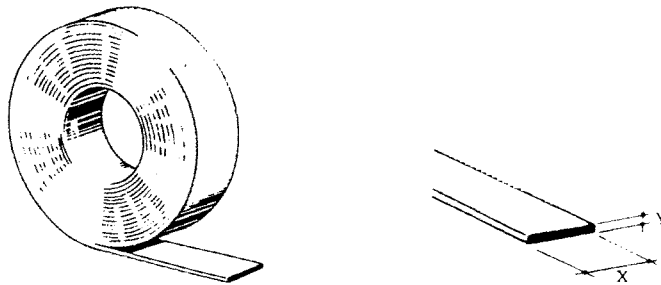
Used for transmission, distribution and rural electrification. The high strength of the copper clad steel wire permits longer span construction, thereby effecting economics by requesting fewer pole or tower assemblies. The excellent weathering characteristics of copper and the high strength of steel give these conductors a strong advantage in all applications.

MECHANICAL & ELECTRICAL PROPERTIES

SIZE			BREAKING STRENGTH		RESISTANCE OHM/1000 FT.	
AWG	DIA. (in)	AREA (in ²)	GRADE 40HS	GRADE 30HS	GRADE 40	GRADE 30
19 NO. 5	0.910	0.4940	50,240	55,570	0.04264	0.05685
19 NO. 6	0.810	0.3917	41,600	45,830	0.05377	0.07168
19 NO. 7	0.721	0.3107	34,390	37,740	0.06780	0.09039
19 NO. 8	0.642	0.2464	28,380	31,040	0.08550	0.1140
19 NO. 9	0.572	0.1954	23,390	25,500	0.1078	0.1437
7 NO. 4	0.613	0.2295	22,310	24,780	0.09143	0.1219
7 NO. 5	0.546	0.1820	18,510	20,470	0.1153	0.1537
7 NO. 6	0.486	0.1443	15,330	16,890	0.1454	0.1938
7 NO. 7	0.433	0.1145	12,670	13,910	0.1833	0.2444
7 NO. 8	0.385	0.09077	10,460	11,440	0.2312	0.3081
7 NO. 9	0.343	0.07188	8,616	9,393	0.2915	0.3886
7 NO. 10	0.306	0.05708	7,121	7,758	0.3676	0.4900
3 NO. 5	0.392	0.07800	8,373	9,262	0.2685	0.3579
3 NO. 6	0.349	0.06185	6,934	7,639	0.3385	0.4513
3 NO. 7	0.311	0.04905	5,732	6,291	0.4269	0.5691
3 NO. 8	0.277	0.03890	4,730	5,174	0.5383	0.7176
3 NO. 9	0.247	0.03085	3,898	4,250	0.6788	0.9049
3 NO. 10	0.220	0.02446	3,221	3,509	0.8559	1.141
3 NO. 12	0.174	0.01539	2,236	-	1.361	-



Copper Tape 동대



Catalog Number			Conductor Size	
Bare	Tinned	PVC Covered	Width (X)	Thickness (Y)
JWEL 1391	JWEL 1411	JWEL 1431	20	3
1392	1412	1432	25	3
1393	1413	1433	25	4
1394	1414	1434	25	6
1395	1415	1435	30	3
1396	1416	1436	30	4
1397	1417	1437	30	5
1398	1418	1438	50	3
1399	1419	1439	50	4
1400	1420	1440	50	5
1401	1421	1441	50	6
1402	1422	1442	40	5
1403	1423	1443	60	5

- Other sizes available on request.