



◀HARD▶



## CABLE STRUCTURE

<b>Conductor</b>	Electrolytic annealed, class 5 stranded plain copper wires (tinned conductor on request)
<b>Seperator</b>	A suitable tape may be applied over the conductor
<b>Insulation</b>	EI4 type cross-linked elastomeric compound, EPR (EN 50363-1)
<b>Inner Sheath</b>	EM2 or EM3 type cross-linked elastomeric compound (EN 50363-2-1) <i>If outer sheath thickness is greater than 2,4 mm</i>
<b>Outer Sheath</b>	EM2 type cross-linked elastomeric compound (EN 50363-2-1)
<b>Color</b>	Black (other colors available on request)

## MAIN CHARACTERISTICS

<b>Construction</b>	EN 50525-2-21, VDE 0285-2-21, IEC 60245-4
<b>General Requirements</b>	EN 50525-1, VDE 0285-525-1, IEC 60245-1
<b>Guide to Use</b>	EN 50565-1/2, VDE 0298-565-1
<b>Electrical Tests</b>	EN 50395, IEC 60245-2
<b>Non-electrical Tests</b>	EN 50396, IEC 60245-2
<b>Conductor Resistance</b>	EN 60228, VDE 0295
<b>Flame Retardant</b>	IEC 60332-1-2, VDE 0482-332-1-2
<b>Oil Resistant</b>	EN 60811-404, VDE 0473-811-404

## OPERATING CHARACTERISTICS

<b>Rated Voltage</b>	450/750 V (U <sub>0</sub> /U)
<b>AC Test Voltage</b>	2,5 kV
<b>Operating Temperature</b>	
<i>In Flexing Use</i>	-25°C to +60°C
<i>In Fixed Use</i>	-40°C to +90°C
<b>Conductor Short-Circuit Temp.</b>	200°C (Max. 5 sec)
<b>Min. Installation Temp.</b>	-25°C
<b>Min. Bending Radius</b>	EN 50565-1 Tab. 3
<b>Current Carrying Capacities</b>	VDE 0298-4 Tab.13, IEC 60364-5-52 Tab. B.5212 & Tab. C.521

\*It's allowed up to 1.000 V AC or DC using for fixed and protected installations.

## APPLICATIONS

These rubber sheathed flexible cables are used as power and control cables in open-built plants, industry works, electrical tools and mobile equipments under heavy conditions and medium mechanical stress. Due to it's construction it can be used indoor, outdoor, wet, oily, damp places and explosion hazard areas. Üntel Kablo certifies the usage of this cable permanently submerged in water up to 10 bar (100 mts) and IPX8 tested by TÜV



FLAME RETARDANT



OIL RESISTANT



UV RESISTANT



WEATHER RESISTANT



WATER RESISTANT



SUBMERSION 100 MT (ADB)

Cross Section (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min.Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
1x1,5	6,00	50	24	13,30
1x2,5	6,40	63	26	7,98
1x4	7,30	85	29	4,95
1x6	8,10	111	32	3,30
1x10	10,20	179	41	1,91
1x16	11,00	238	44	1,21
1x25	13,80	365	69	0,78
1x35	15,30	475	77	0,554
1x50	17,80	657	89	0,386
1x70	19,40	864	97	0,272
1x95	22,10	1118	133	0,206
1x120	24,40	1404	146	0,161
1x150	27,40	1698	83	0,129
1x185	29,70	2100	178	0,106
1x240	32,60	2396	196	0,0801
1x300	35,60	3256	214	0,0641
1x400	40,90	4377	245	0,0486
1x500	45,60	5632	274	0,0384
1x630	49,30	6975	296	0,0287
2x1	8,40	94	34	19,50
2x1,5	9,30	117	37	13,30
2x2,5	10,60	160	42	7,98
2x4	12,20	221	61	4,95
2x6	13,60	288	68	3,30
2x10	19,20	555	96	1,91
2x16	21,00	717	126	1,21
2x25	26,70	1124	160	0,78
2x35	29,40	1421	176	0,554
2x50	34,40	1968	206	0,386
2x70	38,30	2564	230	0,272
2x95	43,70	3330	262	0,206
3x1	9,10	114	36	19,50

Cross Section (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min.Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
3x1,5	9,90	140	40	13,30
3x2,5	11,40	196	46	7,98
3x4	13,10	273	66	4,95
3x6	14,60	358	73	3,30
3x10	20,60	682	124	1,91
3x16	22,50	892	135	1,21
3x25	28,60	1390	172	0,78
3x35	31,70	1789	190	0,554
3x50	37,00	2474	222	0,386
3x70	40,90	3231	245	0,272
3x95	46,90	4220	281	0,206
3x120	51,60	5248	310	0,161
3x150	56,20	6319	337	0,129
3x185	62,30	7806	374	0,106
3x240	69,50	9963	417	0,0801
3x300	76,70	11894	460	0,0641
3x2,5+1,5	12,30	229	62	7,98
3x4+2,5	14,00	316	70	4,95
3x6+4	15,80	425	79	3,30
3x10+6	22,40	810	134	1,91
3x16+10	24,60	1070	148	1,21
3x25+16	31,40	1687	188	0,78
3x35+16	34,60	2114	208	0,554
3x50+25	40,60	2945	244	0,386
3x70+35	44,50	3820	267	0,272
3x95+50	51,00	5008	306	0,206
3x120+70	56,00	6267	336	0,161
3x150+70	60,90	7432	365	0,129
3x185+95	68,40	9296	410	0,106
3x240+120	76,50	11881	459	0,0801
3x300+150	84,40	14580	506	0,0641
4x1	10,10	143	40	19,50

Cross Section (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min.Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
4x1,5	11,00	175	44	13,30
4x2,5	12,60	244	63	7,98
4x4	14,50	342	73	4,95
4x6	16,30	456	82	3,30
4x10	22,60	845	136	1,91
4x16	24,70	1114	148	1,21
4x25	31,80	1760	191	0,78
4x35	35,20	2265	211	0,554
4x50	41,10	3136	247	0,386
4x70	45,00	4098	270	0,272
4x95	52,00	5393	312	0,206
4x120	56,80	6657	341	0,161
4x150	62,20	8067	373	0,129
4x185	69,70	10030	418	0,106
4x240	77,60	12786	466	0,0801
4x300	85,80	15799	515	0,0641
5x1	11,10	170	44	19,50
5x1,5	12,10	208	61	13,30
5x2,5	13,80	290	69	7,98
5x4	16,10	415	81	4,95
5x6	18,10	554	91	3,30
5x10	24,90	1033	149	1,91
5x16	27,40	1377	164	1,21
5x25	35,40	2183	212	0,78
5x35	38,90	2788	233	0,554
5x50	45,80	3902	275	0,386
5x70	50,20	5113	301	0,272
5x95	57,80	6693	347	0,206
6x1,5	14,40	289	72	13,30
6x2,5	16,20	1123	81	7,98
6x4	18,70	551	94	4,95
7x1,5	15,40	337	77	13,30

Cross Section (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Min.Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
7x2,5	17,50	463	88	7,98
7x4	20,70	670	124	4,95
12x1,5	18,70	486	94	13,30
12x2,5	21,20	669	127	7,98
12x4	24,90	969	149	4,95
18x1,5	22,00	690	132	13,30
18x2,5	25,00	964	150	7,98
18x4	29,50	1407	177	4,95
24x1,5	25,70	894	154	13,30
24x2,5	29,40	1263	176	7,98
36x1,5	29,40	1245	176	13,30
36x2,5	33,80	1781	203	7,98