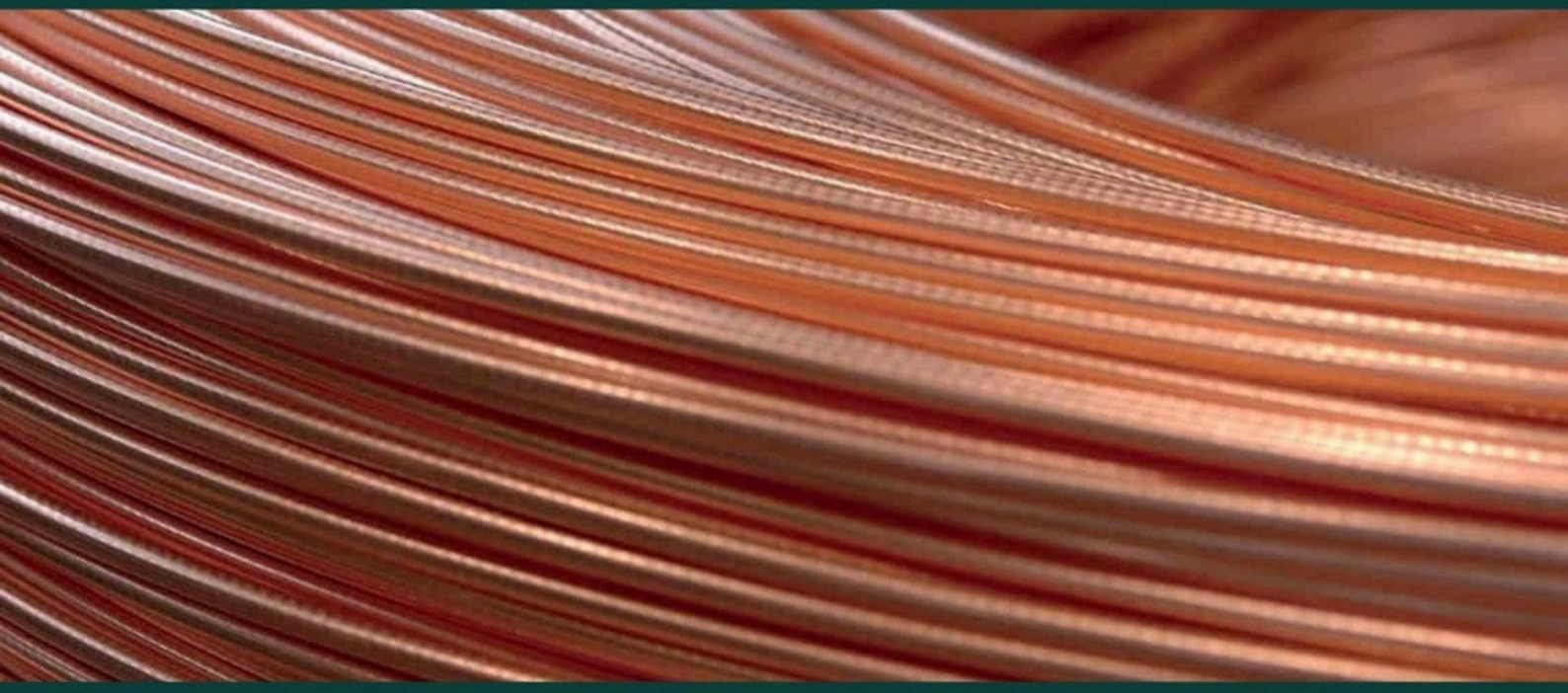
AYBIS GROUP

STRONGER TOGETHER

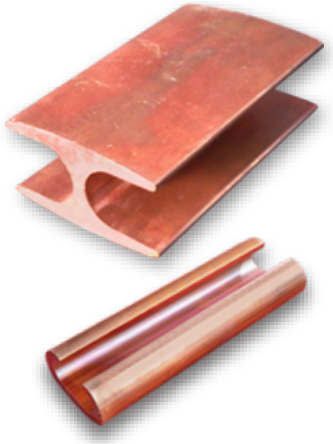


Busbars, shaped bars, circles, and hexagons

Our copper and aluminum busbars have characteristics such as:

-structural versatility ensuring easy assembly and disassembly;
-excellent flexibility, allowing products to keep all useful characteristics in the deformed condition;
-high melting point, ensuring a certain degree of fire safety at high loads and overloads;
- anticorrosion;
- long service life.

The busbars are manufactured according to 13601.



COPPER BUSBARS

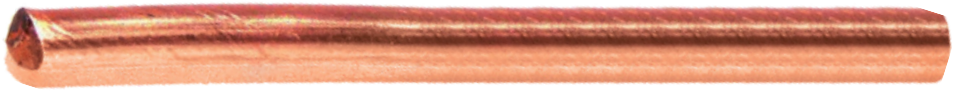
AYBIS Group the busbars from 2 to 6 meters in length:

SIZE	a (mm)	b (mm)	WEIGHT (kg/m)
12.5x12.5	12.5	12.5	1.391
15x6	6	15	0.801
20x3	3	20	0.534
20x4	4	20	0.712
20x5	5	20	0.890
20x8	8	20	1.424
20x10	10	20	1,782
25x3	3	25	0,667
25x5	5	25	1,114
25x8	8	25	1,780
30x3	3	30	0,801
30x4	4	30	1,068
30x5	5	30	1,337
30x6	6	30	1,602
30x7	7	30	1,869

COPPER BUSBARS

Aybis Group supplies the busbars are from 2 to 6 meters in length:

SIZE	a (mm)	b (mm)	WEIGHT (kg/m)
30x8	8	30	2,136
30x10	10	30	2.670
30x20	20	30	5.340
40x3	3	40	1.068
40x4	4	40	1,424
40x4.5	4.5	40	1.602
40x5	5	40	1,780
40xR5	5	40	1,780
40x6	6	40	2.136
40x8	8	40	2,849
40x10	10	40	3,560
40x20	20	40	7.120
40x40	40	40	14,256
50x3	3	50	1.335
50x4	4	50	1,782
50x5	5	50	2,225
50xR5	5	50	2,225
50x6	6	50	2,670
50x8	8	50	3.560
50x10	10	50	4,450
60x4	4	60	2.136
60x5	5	60	2.670
60x6	6	60	3,204
60x8	8	60	4,272
60x10	10	60	5,340
60x12	12	60	6,415
60x16	16	60	8.544
65x4	4	65	2.314
70x4	4	70	2,495
70x5	5	70	3,115
70x10	10	70	6.230
80x5	5	80	3,564
80x8	8	80	5,696
80x10	10	80	7,120
80x15	15	80	10,692
80x20	20	80	14.240
90x10	10	90	8,010
100x10	10	100	8.900
100x12	12	100	10,692
120x10	10	120	10.680
120x12	12	120	12.816
120x20	20	120	21.360
140x15	15	140	18.690
150x10	10	150	13.350
160x10	10	160	14,256
160x15	15	160	21.360

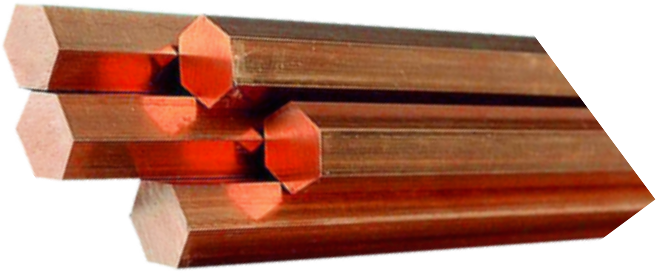


Copper wire rod

SIZE Ø	WEIGHT (kg/m)
61,5	26.425
46,6	15.172
41,5	12.032
39,5	10.901
33,5	7.841
31,5	6.932
28,5	5.675
26,5	4.906
25,5	4.543

Calibrated copper wire rod

SIZE Ø	WEIGHT (kg/m)
30	6.288
27	5.093
24	4.024
18	2.264



Copper hex bars

SIZEØ	WEIGHT (kg/m)
18x21	2.497
30x35	6.937
41x47	12.956
50x58	19.268

A, AC, M non-insulated cables

A, AC, and M wires are the products of our production, and they are manufactured by modern equipment following the quality standards TS-3 and TS EN 13602.

They can be used for various purposes, such as overhead power lines, ground wires, and others. It has excellent electrical conductivity, low resistance, and good stability to overloads and heating. And the service life of wires is at least 45 years.

Wire brand	Code of PCC	Wire construction.	Preferred area of application
m	35 1111	The wire consisting of one or twisted from several copper wires	In the atmosphere of air of type II and III on the land and sea of all macroclimatic areas according to GOST15150 performance of moderately cold climate
A	35 1141	Wire twisted from aluminum wires	In the atmosphere of air of types I and II, upon containing in the atmosphere of sulfur dioxide not more than 150 mg/m2 per day (1.5 mg/m3) on the land of all macroclimatic areas according to GOST 15150 of the performance of MCC, except for TV and TS
AC	35 1151	Wire consisting of a steel core and aluminum wires	In the atmosphere of air of types I and II, upon containing in the atmosphere of sulfur dioxide not more than 150 mg/m2 per day (1.5 mg/m3) on the land of all macroclimatic areas according to GOST 15150 of the performance of MCC, except for TS and TV

Nominal section, mm2	Nominal parameters of wires A				
	Section, mm2	Wire diameter, mm	Electrical resistance of 1km wire against direct current at 20 °C, Om, not more	Breaking tension of wire, N, not less	Mass 1km of wire, kl
(25)	24,9	6,40	1,1498	4500	68,0
(35)	34,3	7,50	0,8347	5913	94,0
(50)	49,5	9,00	0,5784	8198	135,0
(70)	69,3	10,70	0,4131	11288	189,0
(95)	92,4	12,30	0,3114	14784	252,0
(120)	117,0	14,00	0,2459	19890	321,0
(150)	148,0	15,80	0,1944	24420	406,0
(185)	182,8	17,50	0,1574	29832	502,0

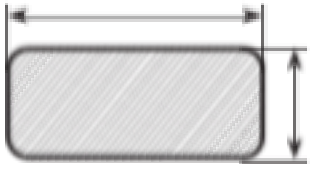
Nominal section, mm2	Nominal parameters of wires M				
	Section, mm2	Wire diameter, mm	Electrical resistance of 1km wire against direct current at 20 °C, Om, not more	Breaking tension of wire, N, not less	Mass 1km of wire, kl
35	34,61	7,5	0,5238	13141	311
50	49,40	9,0	0,3688	17455	444
70	67,70	10,7	0,2723	27115	612
95	94,00	12,6	0,1944	37637	850
120	117,00	14,0	0,1560	46845	1058
150	148,00	15,8	0,1238	55151	1338
185	183,00	17,6	0,1001	73303	1659

Nominal section, mm2	Nominal parameters of wires AC						
	Section aluminum / steel, mm2	Diameter, mm		Electrical resistance of 1km wire against direct current at 20 °C, Om, not more	Breaking tension, N, not less	Mass 1km of wire, kl	
		Wires	Steel core			Aluminum part	Steel core
(10/1,8)	10,6/1,77	4,5	1,5	2,7064	4089	28,9	13,8
(16/2,7)	16/2,69	5,6	1,9	1,7818	6220	44,0	20,9
(25/4,2)	24,9/4,15	6,9	2,3	1,1521	9296	67,9	32,4
(35/6,2)	36,9/6,15	8,4	2,8	0,7774	13524	100,0	48,0
(50/8,0)	48,2/8,04	9,6	3,2	0,5951	17112	132,0	63,0
(70/11)	68/11,3	11,4	3,8	0,4218	24130	188,0	.....*
(95/16)	95,4/15,9	13,5	4,5	0,3007	33369	261,0	124
(120/19)	118/18,8	15,2	5,6	0,2440	41521	324,0	147,0
(120/27)	114/26,6	15,4	6,6	0,2531	49465	320,0	208,0
(150/19)	148/18,8	16,8	5,6	0,2046	46307	407,0	147,0
(150/24)	149/24,2	17,1	6,3	0,2039	52279	409	190
(150/34)	147/34,3	17,5	7,5	0,2061	62643	406	269
(185/24)	187/24,2	18,9	6,3	0,1540	58075	515	190
(185/43)	185/43,1	19,6	8,4	0,1559	77767	509	337

Rectangular wire

Rectangular copper (PMM) and aluminum (AM) wire, used for the manufacture of winding wires and other electrical purposes.

‘a’=2,8÷5,6 mm



‘b’=3,75÷18,0 mm

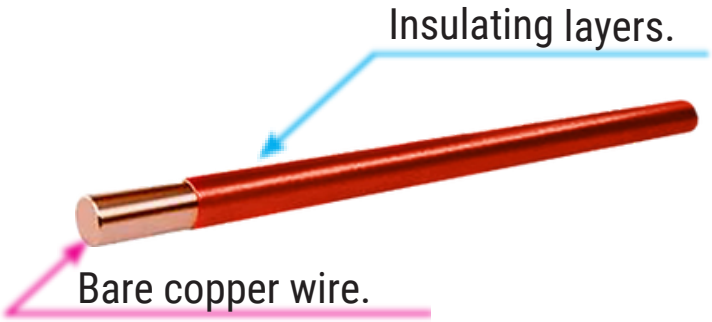
b: The size of the side

a: The size of the side

Enameled wire

Winding wires are the wires used for the manufacture of windings of electrical machines, equipment, and appliances. A significant number of winding wires are used in the manufacturing of devices as well, in various radio technical devices, in TV's, in aviation and space technology, etc.

PET-155		
Wire with enamel insulation based on modified polyester.	• Temperature index TI-155. • Minimum ambient temperature -60°C.	Wire insulation is resistant: • to punching at a temperature of 240 ± 5°C. • to the effect of heat shock at a temperature of 200 ± 5°C.



Enamel wire is manufactured from copper or aluminum, and has insulation based on enamel varnishes. To obtain an enamel coating of high strength and wear-resisting properties we use polyester, polyurethane, and polyvinylacetal enamel varnishes. The obtained insulation differs with a sufficiently high degree of elasticity and has excellent protective and electrical insulating properties. All these make the enamel wire demanded in the windings of electric installations and other electrical devices.

• high strength upon small cross-section and excellent flexibility;

• excellent electrical conductivity and good thermal conductivity;

• capability to preserve its performance specifications over a wide temperature range;

• resistance to impact of organic and technical fluids such as solvents, toluene, transformer oil;

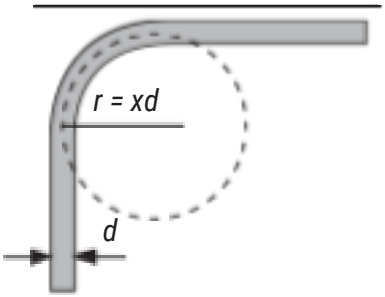
• stability of electrical resistance throughout the service life.

Diameter of winding wire
PET roundwires
Ø-0,90
Ø-0,95
Ø-1,00
Ø-1,06
Ø-1,12
Ø-1,18
Ø-1,25
Ø-1,32
Ø-1,4
Ø-1,45
Ø-1,5
Ø-1,56
Ø-1,6
Ø-1,7
Ø-1,75
Ø-1,8
Ø-1,9
Ø-2,0
Ø-2,12
Ø-2,24
Ø-2,36
Ø-2,5

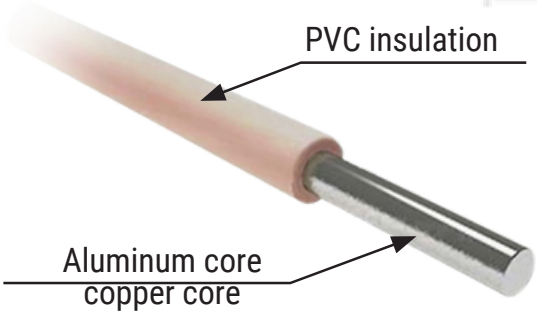
Wires PuV and APV

Electrical PuV and APV wires are used in industry and in construction. Depending on the section of wire, the PuV and APV significantly differ from each other visually.

PuV	APV
1,5 мм2	1,5 мм2
2,5 мм2	2,5 мм2
4 мм2	4 мм2
6 мм2	6 мм2
10 мм2	10 мм2
16 мм2	16 мм2
25 мм2	25 мм2



Bending of PuV and APV wires



Wires VVG

VVG are the cables consisting of current-carrying conductor strand, flexible, each strand is protected by insulating layer of polyvinylchloride material; moreover, the cable itself has a protective outer shell consisting of PVC compound.

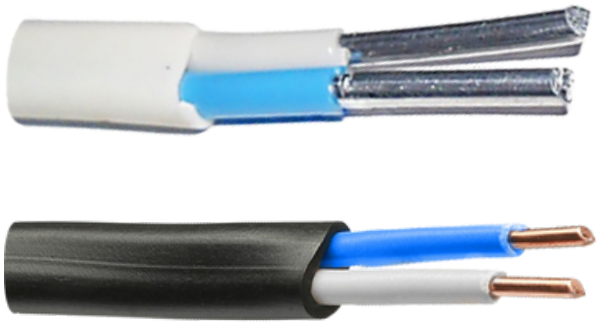
VVG
1x2,5 мм2
1x4 мм2
1x6 мм2
1x10 мм2
1x16 мм2
1x25 мм2

Wires PuVV and APUNP

PuVV and APUNP are insulated copper cores connected by a common shell. They are used in construction for the operation and assembling of fixed installations in lighting networks.

PuVV (PUNP)		APUNP	
2x1,5 мм.	23x1,5 мм2	2x2,5мм	23x2,5 мм2
2x2,5 мм.	23x2,5 мм2	2x4 мм	23x4 мм2
2x4 мм.	23x4 мм2	2x6 мм	23x6 мм2
2x6 мм.	23x6 мм2	2x10 мм.	23x10 мм2
2x10 мм	23x10 мм2		

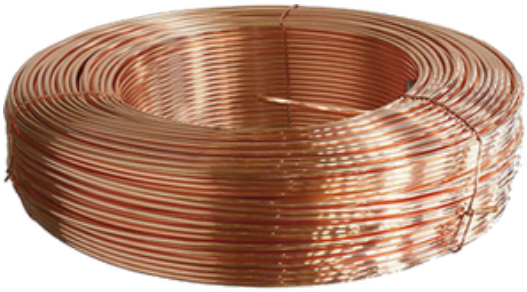
Technical specifications: • rated voltage – up to 450/750 Volts; • rated frequency – up to 400 Hz; • permissible heating of the core of the wire – up to 70 ° C; • service life – at least 15 years.

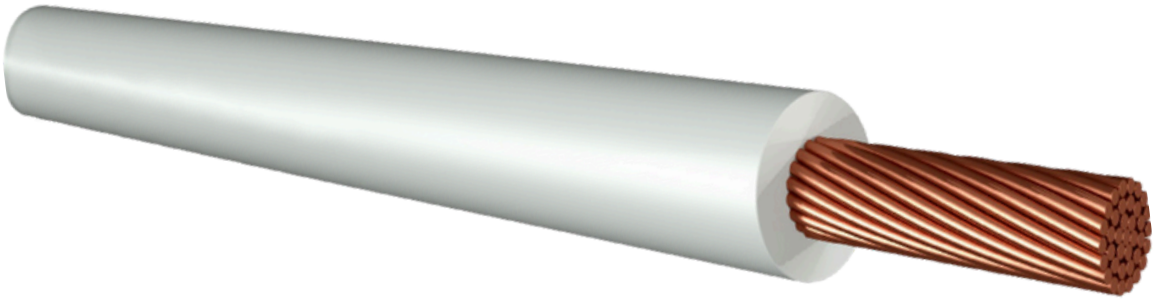


Conductors MMG

MMG is a copper round electrical conductor. Copper core has found wide application due to its conductive properties in such industries as mechanical engineering, telecommunications, electric power industry... The advantages of the copper core are ductility, high thermal conductivity, corrosion resistance, and strength. It can be tinned and it may or may not have a protective coating. Wires, cords, cables, windings for motors, etc. are made from a copper core.

class	MMg
4 class	1,5 мм2
	2,5 мм2
	4,0 мм2
5 class	6,0 мм2
	10,0 мм2





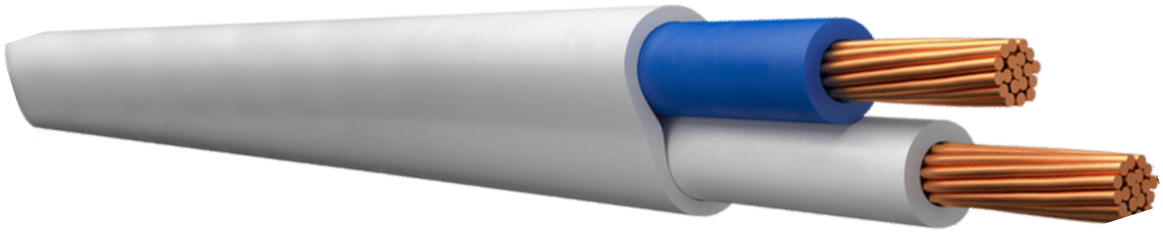
PuGV	
Nominal section of the current-carrying strand, mm2	class
1,5	5
2,5	5
4	5
6	5
10	5
16	5

Wires PuGV

PuGV – flexible installation wire in PVC insulation, used for installation in places with limited space, such as electrical panels and internal wiring of electrical equipment. It can be used as a mounting or power conductor in circuits with a voltage of up to 450V.

The PuGV wire has quite typical technical characteristics for its design:

- AC voltage 450/750V with a frequency of up to 400 Hz.
- DC voltage up to 1000V. - The temperature range is acceptable for operation from -50 to +75 degrees Celsius with a humidity of up to 98%.
- The temperature at which it is allowed to perform installation work is not lower than -15 degrees Celsius.
- Bending radius of at least 5 external diameters.
- Does not spread gorenje when laid alone.



PuGVV	
Nominal section of the current-carrying strand, mm2	class
1,5	5
2,5	5
4	5
6	5
10	5
16	5

Wires PuGVV

Pogw – wire installation with flexible PVC insulation and sheath are applied to electrical units at stationary laying in lighting and power networks, and also to installation of electric equipment, cars, mechanisms and machines, domestic electrical installations for rated voltage up to 450/750 V and frequency up to 400 Hz or constant tension to 1000 V.

Requirements for resistance to external influences:

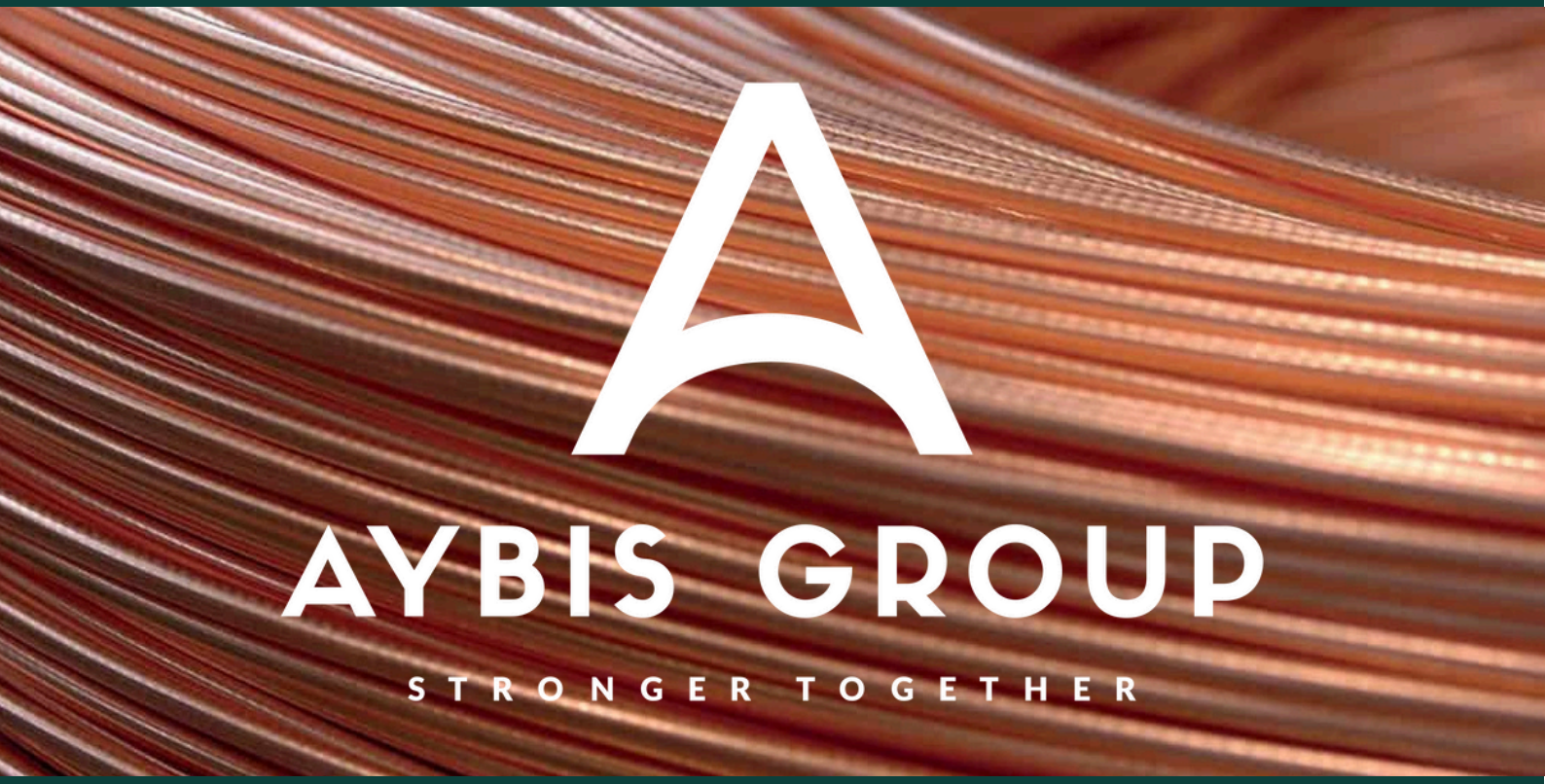
- the wires are resistant to high ambient temperatures up to 65°C

- the wires are resistant to low ambient temperatures up to - 50°C

- the wires are resistant to high relative humidity up to 98% at ambient temperatures up to +35°C

Installation of wires is carried out at a temperature not lower than -15°C
Bending radius during installation – not less than 5 Dn

The long-term permissible core heating temperature during operation is no more than +70C The service life of the PuGVV wire is at least 15 years if the consumer complies with the requirements for transportation, storage, installation and operation.



+370 640 03675, +370 640 03674
info@aybis.de
sales@aybis.de
www.aybis.de

26 Jono Basanavičiaus, Vilnius 03224,
Lithuania