ALUMINIUM WIRE ROD

- 1370 EC Grade
- 6101
- 6201
- Al 59
- Al 1120
- Al-Zr

EC GRADE Al 1370

Material : Continuous Casting EC Grade Aluminium Wire Rod.

Technical Specifications:
Guaranteed chemical composition: EN AW 1370 (EAl 99,7)

AL %	IMPURTIES, % MAX										OTHER IMPURITIES, %	
	Fe	Si	Cu	Zn	Ti	V	Mn	Cr	Mg	B	Each	Total
Min 99,7	0,20	0,10	0,02	0,04	0,006	0,003	0,01	0,01	0,02	0,005	0,005	0,01

Dimensions, linear mass: The primary Aluminium Wire will be delivered in following diameter and unit weight range

Nominal Diameter (mm)	Deviation Range (mm)	Linear Mass (Kg/m)
9,5	±0,5	0,191
12,0	±0,5	0,305
15,0	±0,5	0,477

The linear mass is calculated for the density of 2,7 kg/dm3.
The cross-section of the wire rod is similar to a circle section, with three flattened sides. Wire ovality (the difference between the large and small dimensions of a section) will not exceed the value of the deviation range in table no.2.

Mechanical and electric characteristics:

CODE	Metallurgical delivery state	Mechanical characteristics			Electric characteristics temperature 20°C	
		R_m Mpa		Usual Elongation A_{100} %	Resistivity μ cm max	Conductivity %IACS min.
		Min	Max.			
EN AW 1370 (EAL 99.7)	H16	120	140	10	2,801	61,55
	H14	115	130	14	2,801	61,55
	H13	105	120	16	2,801	61,55
	H12	95	110	20	2,801	61,55
	H11	80	95	25	2,801	61,55

Material:
Continuous Casting 6101 Almelec Grade Aluminium Wire Rod.

6101

Technical Specifications:
Guaranteed chemical composition: EN 1715

Chemical Composition of Alloying Elements, % According to EN 573-3							Other Impurities	
Si	Fe	Cu	Mn	Mg	Zn	B	Each	Total
0,30	0,10	0,05	0,05	0,35	0,01	0,003	0,03	0,1
0,60	0,30			0,60				

Dimensions, linear mass:
The 6101 Alloy Aluminium Wire will be delivered in following diameter and unit weight range

Nominal Diameter (mm)	Deviation Range (mm)	Linear Mass (Kg/m)
9,5	±0,5	0,191

The linear mass is calculated for the density of 2,7 kg/dm3.
The cross-section of the wire rod is similar to a circle section, with three flattened sides.
Wire ovality (the difference between the large and small dimensions of a section)
will not exceed the value of the deviation range in table no.2.

Mechanical and electric characteristics:

Alloy denomination	Metallurgical delivery state	Mechanical characteristics		Electric characteristics temperature 20°C	
		Tensile Strength Mpa Min	Usual Elongation A_{100} %	Resistivity µ cm max	Conductivity %IACS min.
6101 T4	AlmgSi	150	20	3,45	51,29

Material:
Continuous Casting 6201 Alloy Grade Aluminium Wire Rod.

6201

Technical Specifications:
Guaranteed chemical composition: EN 1715

Chemical Composition of Alloying Elements, % According to EN 573-3							Other Impurities	
Si	Fe	Cu	Mn	Mg	Cr	Zn	Each	Total
0,50	0,5	0,01	0,03	0,60	0,03	0,01	0,03	0,1
0,90				0,90				

Dimensions, linear mass:
The 6201 Alloy Aluminium Wire will be delivered in following diameter and unit weight range

Nominal Diameter (mm)	Deviation Range (mm)	Linear Mass (Kg/m)
9,5	±0,5	0,191

The linear mass is calculated for the density of 2,7 kg/dm3.
The cross-section of the wire rod is similar to a circle section, with three flattened sides.
Wire ovality (the difference between the large and small dimensions of a section)
will not exceed the value of the deviation range in table no.2.

Mechanical and electric characteristics:

Alloy denomination	Metallurgical delivery state	Mechanical characteristics		Electric characteristics temperature 20°C	
		Tensile Strength Mpa Min	Usual Elongation A_{100} %	Resistivity µ cm max	Conductivity %IACS min.
6201	Almg0.7Si	160	21	3,55	49.74

Material : Continuous Casting Al 59 Alloy Grade Aluminium Wire Rod

Al 59

Chemical Composition of Alloying Elements, % According to EN 573-3							OTHER IMPURITIES, %	
Si	Fe	Cu	Mn	Mg	Cr	Zn	Each	Total
0,35 0,45	0,06 0,18	0,005 0,015	0,01	0,33 0,43	-	0,05	0,03	0,10

Mechanical and Electrical Characteristic

Alloy Denomination	Mechanical Characteristics		Electrical Characteristics	
	Tensile Strength (MPa)	Elongation %	Resistivity nΩm (max.)	Conductivity % IACS (min.)
Al 59	140-165	≥10	32,53	≥53

Material : Continuous Casting Al 1120 Alloy Grade Aluminium Wire Rod

Al 1120

Chemical Composition of Alloying Elements, % According to EN 573-3							OTHER IMPURITIES, %	
Si	Fe	Cu	Mn	Mg	Cr	Zn	Each	Total
0,10	0,12 0,22	0,05 0,25	0,01	0,33 0,14	-	0,05	0,03	0,10

Mechanical and Electrical Characteristic

Alloy Denomination	Mechanical Characteristics		Electrical Characteristics	
	Tensile Strength (MPa)	Elongation %	Resistivity nΩm (max.)	Conductivity % IACS (min.)
1120	140-170	≥10	29,22	≥59

Material : Continuous Casting Al-Zr Alloy For Thermal Resistant Aluminium Alloy According to IEC 62004

Al-Zr

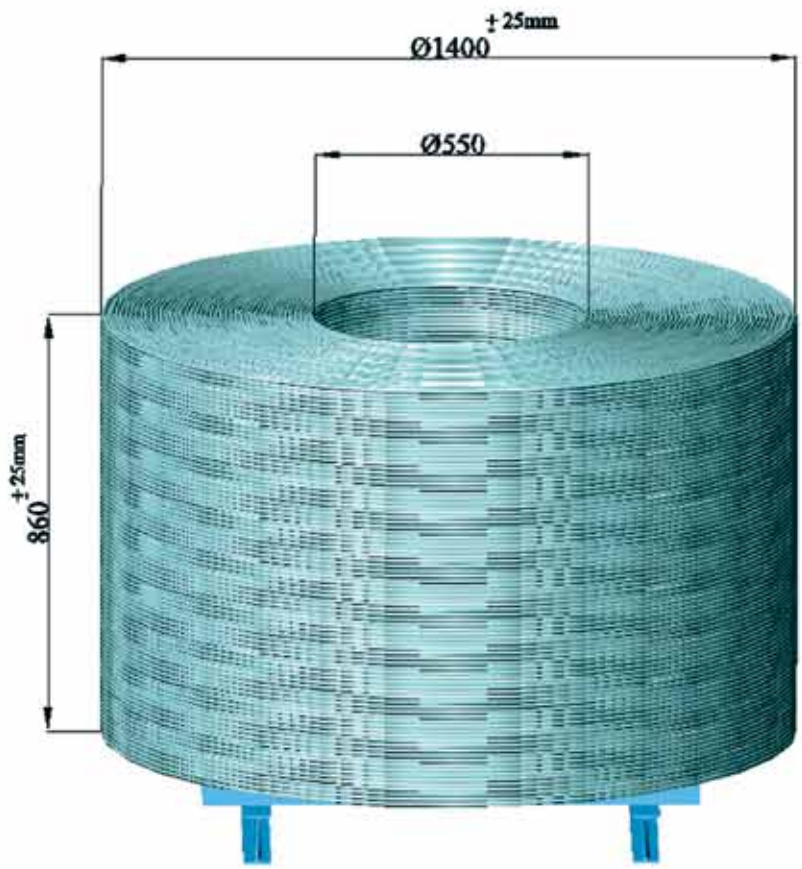
Type	Designation	Tensile Strenght N/mm²	Elongation %/200 mm	Resistivity Ohm X m	Conductivity % IACS
AT1	TAL	Min 118	4	28.735	60%
AT2	KTAL	Min 186	5	31.347	55%
AT3	ZTAL	Min 118	4	28.735	60%
AT4	XTAL	Min 118	4	29.726	58%

Aspect:
The surface of the wire rod must present a specific luster. The surface must be free of oxide, oil, seams, cracks, films, pipes or spall. Isolated defects are allowed (scratches, bumps) provided that after their removal, the wire rod stays within the variation range indicated in table no.2.

MARKING:
Each coil will be provided with a tag where the following will Label

Material :	Diameter:
Net Weight :	Gross Weight:
Production Date	Coil Number
Customer Name :	Order No :

PACKING AND DELIVERY:
The wire rod is delivered in continuous wire coils of 1000-2500 kg.



The packing manner has to be mutually established with the customer, we are ensuring the following, according to options:

- 3 steel or plastic bands tie at 120 °
- The coils are stacked on wooden racks, which allow the handling of the coil with the fork-lifter.
- The coils will be transported in closed containers, with transport options, respectively: on wagons or on road trucks. The coils will be placed on wooden stands.