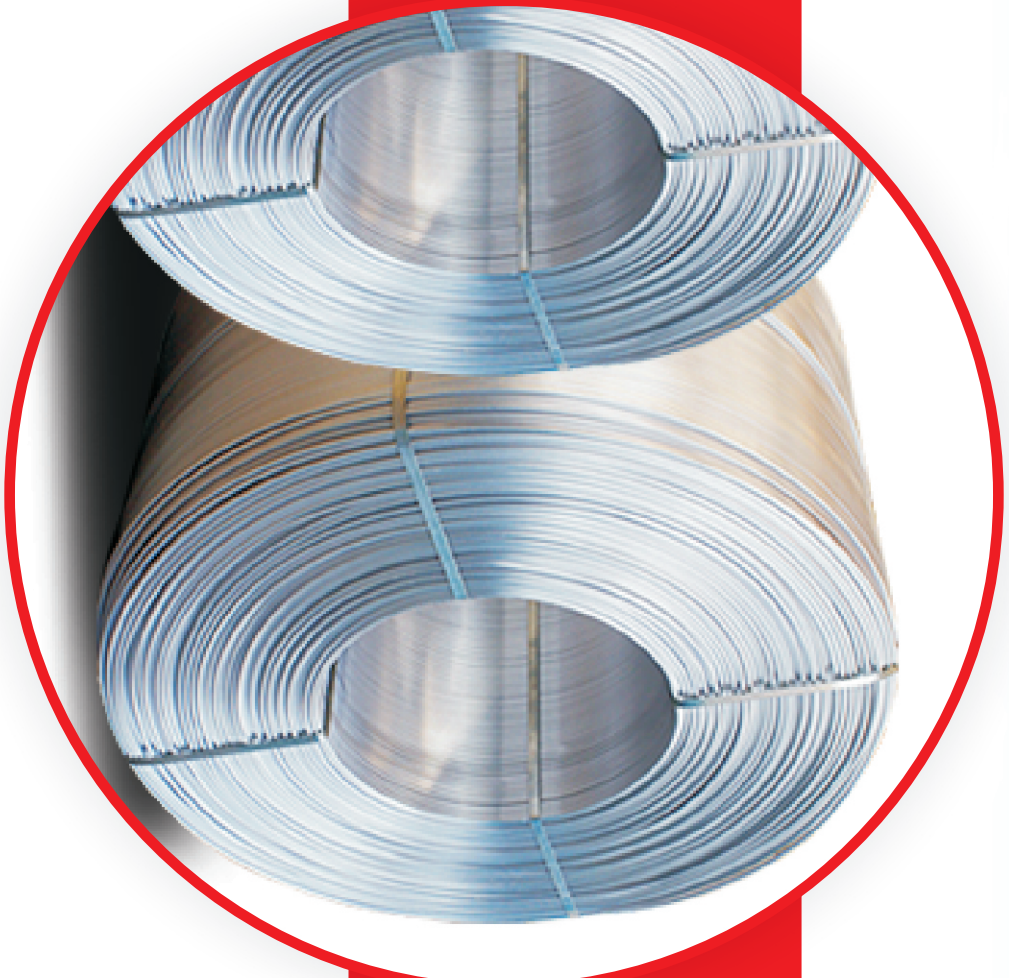


SOMYATM

The Complete Solution

ALUMINIUM ROD



UNIVERSAL METALS (PVT.) LIMITED

SONA CONDUCTORS & CABLES

We have started our journey with the high grade aluminium ingot delivered to our furnace. During processing, the molten metal is tested and alloying is carried out if alloy rod is to be produced. The melt is channelled from the furnaces onto a rotating casting wheel where it partially cools and solidifies into a continuous bar. The bar is then passed straight into a no twist rolling mill to reduce it to a 9.5 mm or 12 mm rod which is coiled and ready for the wire drawing process. **UNIVERSAL METALS** ensures that the highest quality EC grade and Alloy rod is produced for conductor manufacturing. The finished rod is carefully selected for the correct tensile strength and conductivity.

The aluminium or aluminium alloy rod is drawn to the correct wire size on drawing machines partially submerged in oil to give the wire a first class finish. The last finishing die in the drawing process, rotates to ensure a uniformly round wire. The wire is wound onto a bobbin which is passed to the stranding equipment. Each bobbin in the equipment is controlled by a brake which maintains uniform tension on the wire throughout the stranding process. This produces a more uniform product of higher quality.

UNIVERSAL METALS are proud of our rigorous quality control system. It ensures the highest standards for our products, from the start to the finish of the manufacturing process.

In **UNIVERSAL METALS** having fully equipped laboratory, we spectroanalyze the input molten aluminium to ensure its quality, carry out tensile and elongation and wrap tests and measure conductivity as required by the different international standards and specifications or customer any specially desired requirements. In addition, **UNIVERSAL METALS'** personnel carry out many other tests and checks during each stage of production to ensure that a perfect product is manufactured.

UNIVERSAL METALS' quality management system has been instituted to provide complete satisfaction to its valued clients.

Certification under: ISO 9001:2008 was awarded as a true recognition of what has been in practice.

UNIVERSAL METALS "The Complete Solution" with all types of CONDUCTORS & CABLES.



ALUMINIUM RODS

Overhead Line
Conductors:

Drawn Wire:

Manufacturing Standard:

We manufacture Aluminium and Aluminium alloys rod according to all international standards (ASTM, BS, DIN, IEC, etc.) upon request.

ASTM B 233 &ASTM -B399/B-399M-/ASTM B230 /ASTM B231- B231M/ASTM -B232- B232M/BS EN 573-3-2009/EN 1715-1- 1997



1. ALUMINIUM 1xxx Series EC RODS

Product Code	Chemical Composition %					Diameter mm	Temper	Physical Properties			
	Si	Fe	Cr	Mn	AL			Tensile Mpa		Elongation % at 250 mm length	
-	Max	Max	Max	Max	Min	DI-Tolerance	-	Min	Max	Min	Min
1080A	0.15	0.15	0.01	0.02	99.80	9.5 ±0.5	H11	83	95	25	61.9
	0.15	0.15	0.01	0.02	99.80	9.5 ±0.5	H12	95	110	20	61.5
1350	0.10	0.40	0.01	0.01	99.50	9.5 ±0.5	H11	83	95	25	61.9
	0.10	0.40	0.01	0.01	99.50	9.5 ±0.5	H12	95	110	20	61.5
	0.10	0.40	0.01	0.01	99.50	9.5 ±0.5	H13	100	117	15	61.5
	0.10	0.40	0.01	0.01	99.50	9.5 ±0.5	H14	115	138	5	61.5
1370	0.10	0.25	0.01	0.01	99.70	9.5 ±0.5	H11	80	95	25	61.9
	0.10	0.25	0.01	0.01	99.70	9.5 ±0.5	H12	105	120	15	61.5
	0.10	0.25	0.01	0.01	99.70	9.5 ±0.5	H14	115	130	5	61.5

Product Code	Chemical Composition %					Diameter mm		Physical Properties			
	Si	Fe	Cr	Mn	AL	Mixn	Max	Tensile Mpa		Elongation % at 250 mm length	
	Max	Max	Max	Max	Min	-	-	Average	Individual	Average	Individual
1080A	0.15	0.15	0.01	0.02	99.8	-	-	-	-	-	-
	0.15	0.15	0.01	0.02	99.8	-	-	-	-	-	-
	0.15	0.15	0.01	0.02	99.8	-	-	-	-	-	-
1350	0.10	0.40	0.01	0.01	99.5	0.227	1.25	170	160	-	-
	0.10	0.40	0.01	0.01	99.5	1.26	1.50	200	185	1.4	1.2
	0.10	0.40	0.01	0.01	99.5	1.51	2.00	195	185	1.5	1.3
	0.10	0.40	0.01	0.01	99.5	2.01	2.25	190	180	1.6	1.5
	0.10	0.40	0.01	0.01	99.5	2.23	2.50	185	175	1.6	1.5
	0.10	0.40	0.01	0.01	99.5	2.51	2.75	180	170	1.6	1.5
	0.10	0.40	0.01	0.01	99.5	2.76	3.00	175	165	1.7	1.6
	0.10	0.40	0.01	0.01	99.5	3.01	3.75	170	160	1.9	1.8
	0.10	0.40	0.01	0.01	99.5	3.76	5.25	165	160	2.1	2.0
1370	0.10	0.40	0.01	0.01	99.5	5.26	6.50	160	155	2.3	2.2
	0.10	0.25	0.01	0.01	99.7	0.227	1.25	170	160		
	0.10	0.25	0.01	0.01	99.7	1.26	1.50	200	185	1.4	1.2
	0.10	0.25	0.01	0.01	99.7	1.51	2.00	195	185	1.5	1.3
	0.10	0.25	0.01	0.01	99.7	2.01	2.25	190	180	1.6	1.5
	0.10	0.25	0.01	0.01	99.7	2.26	2.50	185	175	1.6	1.5
	0.10	0.25	0.01	0.01	99.7	2.51	2.75	180	170	1.6	1.5
	0.10	0.25	0.01	0.01	99.7	2.76	3.00	175	165	1.7	1.6
	0.10	0.25	0.01	0.01	99.7	3.01	3.75	170	160	1.9	1.8
	0.10	0.25	0.01	0.01	99.7	3.76	5.25	165	160	2.1	2.0
0.10	0.25	0.01	0.01	99.7	5.26	6.50	160	155	2.3	2.2	

3. Aluminium Alloy 6xxx Series Rod

Product Code	Chemical Composition %					Diameter mm		Physical Properties		
	Si	Fe	Cu	Mg	AL			Tensile Mpa	Elongation % at 250 mm lngth	
6101	0.30-0.70	0.4 Max	0.5 Max	0.35-0.60	REST	9.5 ±0.5	T1	190	17	49.2
	0.30-0.70	0.4 Max	0.5 Max	0.35-0.60	REST	9.5 ±0.5	T4	150	23	49.2
6201	0.50-0.90	0.5 Max	0.5 Max	0.60-0.90	REST	9.5 ±0.5	T1	205	17	47.8
	0.50-0.90	0.5 Max	0.5 Max	0.60-0.90	REST	9.5 ±0.5	T4	160	21	47.8

Diameter:

Specified diameter (mm)	Tolerance (mm)
9.5	± 0.50
12*	± 0.70

4. Aluminium Alloy 6xxx Series Wire

Product Code	Chemical Composition %					Diameter mm	Type	Physical Properties		
	Si	Fe	Cu	Mg	AL			Tensile Mpa	Elongation % at 250 mm lngth	
6101	0.30-0.70	0.4 Max	0.5 Max	0.35-0.60	REST	1.5 - 5.0	A L 3	295 Min	3.5	53
	0.30-0.70	0.4 Max	0.5 Max	0.35-0.60	REST	1.5 - 5.0	A L 3	295 Min	3.5	53
6201	0.50-0.90	0.5 Max	0.5 Max	0.60-0.90	REST	1.5 - 5.0	A L 3	295 Min	3.5	53
	0.50-0.90	0.5 Max	0.5 Max	0.60-0.90	REST	1.5 - 5.0	A L 3	295 Min	3.5	53

Packing:

Coil Diminution:

Weight of the Coil - 2000 Kg +/-10 % (large coil up to 3200 Kg according to customer's request).

Inner Dia - 500 mm minimum

Outer Dia - 1800 mm (Max.)

Height 1000mm Max.

Wooden Pallet Dimension: Length & width -1600 mm Height -100 mm

Packing material: coil, tied with steel strap and wrapped by cartons in polyethylene bag and then on wooden Pallets, in eye to sky type or eye to wall according to customer's request

Our Certifications



Our Enlistments





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ADOPTIONS

SONA™
The Complete Solution