

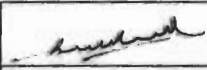
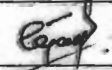
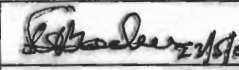
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**GOVERNMENT OF INDIA
(Ministry of Railways)**

**SPECIFICATION FOR
ALUMINIUM WIRE (99% PURE)
(PL No.)**

Issued by

**MECHANICAL DRAWING OFFICE
WHEEL & AXLE PLANT
YELAHANKA, BANGALORE-560 064
I N D I A**

		
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Specification of Aluminium Wire(99% purity)**1.0 Scope:**

This specification covers the requirements for Aluminium Wire used in Steel Melt Shop/Wheel and Axle Plant, Yelahanka, Bangalore-560 064.

2.0 Usage of Aluminium Wire:

Aluminium Wire is used for final killing of the liquid steel tapped in the ladle from Electric Arc Furnaces before casting railway wheels.

2.1 Job requirement:

The wire should have sufficient strength for using in the wire feeding machine of make M/S Minex Matallurgical Co.Ltd.

2.2 Aluminium Wire Feeding Machine data - for guidance:

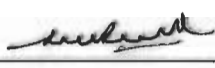
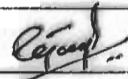

2.2.1	Model No.	CWF(D) 6-159-22 (DC)
2.2.2	Rate of feeding (Auto)	300m/min (stepless control)
2.2.3	Normal rate of feeding	200m/min.
2.2.4	Forward/Reverse Jog speed	20-30m/min.
2.2.5	Duty cycle	10 minutes operation for every 45 minutes

2.3 Coil details for guidance:

2.3.1	Height	650 mm
2.3.2	Outside dia	880 mm
2.3.3	Inside dia	520/530 mm
2.3.4	Length of wire	(Approx) 5128 Mtrs/1000 kgs

2.4 Coil details - Restrictive:

2.4.1	Type	Flipping
2.4.2	Axis	Vertical

		
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3.0 **Chemical Composition:**

3.1 The Chemical Composition and the test method shall be according to latest IS 23 Grade 1900. The Requirements are:

Aluminium	99% Min.
Iron	0.15% Max.
Silicon	0.50% Max.
Copper	0.03% Max
Zinc	0.06% Max.
Manganese	0.05% Max.
Total Impurities	1.00% Max

3.2 **Shape:** The shape of the Aluminium Wire shall be round
Dia 9.5+/-0.2 mm.

4.0 **Sampling Norm:**

4.1 The sampling shall be done as under.

One piece of Aluminium wire of 500mm length from each bundle and part thereof.

5.0 **Method of chemical analysis and testing:**


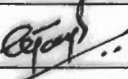
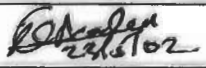
Sample is checked for chemical constituents in accordance of the specification No. latest IS 504, the constituents shall conform to para 3.0.

6.0 **Test Certificate:**

The supplier shall submit the test certificate pertaining to the lot intended to supply to Wheel and Axle Plant/Bangalore fully conforming to the requirements.

7.0 **Warranty:**

The supplier shall submit a guarantee certificate for that their product conforms to the specification and to the effect, that in case their products fail to meet the requirement given in the specification, they shall replace the whole supply free of cost. In case the supplier fails

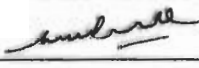
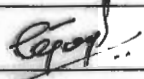
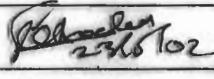
		
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to replace the material within 21 days after receipt of the complaint, Wheel and Axle Plant, Bangalore shall have the right to dispose off the material in which ever way deemed fit but the supplier shall not be paid for the quantity rejected.

8.0 **Packing:**

The material shall be packed in bundles of 500 kg/1000 kg coils in vertical flipools fitted with cage and mounted on wooden crate covered with wooden blanks. Each bundle shall bear Supplier's name and name & grade of material.

Use eco friendly bio-degradable packing material.

		
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AMENDMENT SHEET

Alt.	DATE	DESCRIPTION	JOB NO.	APPROVED BY	
				DESI.	SIGN.
nil	22.05.02	New Specification	4152	WM/MELT	<i>[Signature]</i>

<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i> 23/5/02
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