

# ALUMINIUM ENAMELLED WIRES

## General Characteristics

Chetak AL product series are Aluminium enamelled wires specially designed with various insulation coatings depending on the Thermal Class and end properties as desired.

Chetak aluminium wires are manufactured from selected rods of high purity electrical grade aluminium. Absolute care is taken in achieving the appropriate annealing conditions for soft & defect free aluminium conductors. Precise settings are also incorporated for the perfect bonding of modified enamel to aluminium conductors thereby giving higher insulation properties. Chetak AL series wires are characterized by very good thermal properties and good chemical, electrical and mechanical properties also.

Chetak AL series wires are being used as a good cost effective alternative to the expensive copper enamelled wires.

In the power distribution transformer industry, for many products, Chetak AL series wires have successfully replaced the copper enamelled wires. Chetak AL series wires find application in the transformers, ballasts, stabilizers, UPS & electrical industry.

## AL Product Series :

- > Chetak AL9 Class B, 130
- > Chetak AL-F Class F, 155
- > Chetak AL15 Class H, 180
- > Chetak AL-DC Class H+, 200

## Range :

SWG 8 ~ 23 / 4.00 ~ 0.60 mm

## Packing :

Upto 30 kgs, PT25 to PT90  
(Tapered Plastic Spools)

Product :	AL9	AL-F	AL15	AL-DC
Thermal Class :	130 (B)	155 (F)	180 (H)	200 (H+)
Insulation :	Polyester	Modified Polyester	Polyesterimide	Polyesterimide + Polyamide Imide
<b>Test Results for 1.00 mm (Grade 2) enamelled wires :</b>				
Heat Shock :	160 °C	180 °C	210 °C	220 °C
Cut Through :	260 °C	280 °C	310 °C	320 °C
Flexibility :	3d	3d	3d	3d
Elongation :	23%	23%	23%	23%
Breakdown Voltage :	9.0 kV	9.0 kV	9.0 kV	9.0 kV
Resistance :	0.03432 Ω	0.03432 Ω	0.03432 Ω	0.03432 Ω

Properties of Copper & Aluminium :

Property	Copper	Aluminium
Electrical Conductivity, @20°C (IACS)	101%	61.80%
Electrical Resistivity, μΩ-cm	1.72	2.83
Density @ 20°C	8.89	2.703



**Gujarat Cables & Enamelled Products P. L.**

**Chetak**

508, Bharat Chambers, Baroda Street, Mumbai 400 009

T: 022 66311995 F: 022 23488170 E: info@gujaratcables.com W: www.gujaratcables.com