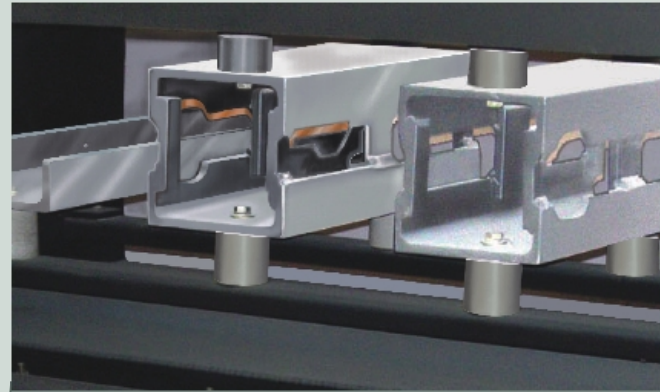


**HINDALCO**  
**EXTRUSIONS**

**EXPERTISE IS OUR STRENGTH**



***Greater Power ...  
Better Carrier***

# HINDALCO ALUMINIUM BUSBARS

**Hindalco Industries Ltd.**, the flagship company of the Aditya Birla Group, is India's leading Aluminium & Copper producer. A leader in the extrusions industry, Hindalco manufactures a wide range of extrusions for multiple applications including electrical. An approved supplier for IPS tubes for major corporations namely NTPC / PGCIL / NPC / KPCTL / UPPCL etc., Hindalco is also CORE (Central Organisation of Railway Electrification) certified for Railways electrification requirements. The Company's branded Aluminium Busbars are marketed through a large distribution network across the country apart from direct sales. The clientele list includes reputed names like ABB, ALSTOM, BHEL, Crompton Greaves, L & T, Siemens.

## Types of Busbars

- Flat
- Channel
- Tubular

## Specifications

| Sr.No | Alloy Designation              | Temper            | Tensile Strength (Min) |                      | 0.2% Proof Stress (Min) |                      | % Elongation on 50 mm (Min) | Electrical Conductivity at 20°C % IACS (Min) |
|-------|--------------------------------|-------------------|------------------------|----------------------|-------------------------|----------------------|-----------------------------|--|
|       |                                |                   | Mpa                    | Kg / mm <sup>2</sup> | Mpa                     | Kg / mm <sup>2</sup> |                             |  |
| 1     | IS 63401 / AA6101 / ALCAN D50S | WP / T6 (range 1) | 170                    | 17.34                | 135                     | 13.77                | 12                          | 56.5   |
| 2     | IS 63401 / AA6101 / ALCAN D50S | WP / T6 (range 2) | 200                    | 20.40                | 170                     | 17.34                | 10                          | 55.0   |
| 3     | IS 19501 / AA1050 / ALCAN C1S  | M / F             | 60                     | 6.12                 | —                       | —                    | 25                          | 60.0   |

Conforming to IS : 5082 : 1998

## Chemical Composition (%)

| Alloy Designation              | Copper (Cu) | Magnesium (Mg) | Silicon (Si) | Iron (Fe) | Manganese (Mn) | Zinc (Zn) | Titanium (Ti) | Chromium (Cr) | Others Each | Others Total | Aluminium    |
|--------------------------------|-------------|----------------|--------------|-----------|----------------|-----------|---------------|---------------|-------------|--------------|--------------|
| IS 63401 / AA6101 / ALCAN D50S | 0.05        | 0.4 - 0.9      | 0.3 - 0.7    | 0.50      | 0.03           | 0.10      | 0.10          | 0.03          | 0.03        | 0.10         | Remainder    |
| IS 19501 / AA1050 / ALCAN C1S  | 0.04        | —              | 0.15         | 0.35      | 0.02           | 0.02      | —             | 0.02          | 0.03        | 0.10         | 99.50 (min.) |

Note: Single figure shows maximum limit, unless specified.

## Busbar Flats: Bending radii based on thickness

| Sr.No | Alloy Designation              | Temper       | Thickness (t)mm                | Minimum Inside Bend Radius |
|-------|--------------------------------|--------------|--------------------------------|----------------------------|
| 1     | IS 63401 / AA6101 / ALCAN D50S | WP (range 1) | 3.0 to up to and including 9.5 | 1.0 x thickness (t)        |
| 2     | IS 63401 / AA6101 / ALCAN D50S | WP (range 1) | Above 9.5 to 12.0              | 1.5 x thickness (t)        |
| 3     | IS 63401 / AA6101 / ALCAN D50S | WP (range 2) | 3.0 to up to and including 9.5 | 2.0 x thickness (t)        |
| 4     | IS 63401 / AA6101 / ALCAN D50S | WP (range 2) | Above 9.5 to 12.0              | 2.5 x thickness (t)        |
| 5     | IS 19501 / AA1050 / ALCAN C1S  | M / F        | Upto 12.0 max.                 | 1.0 x thickness (t)        |

## Application Range of Hindalco Aluminium Busbars

- Switchgears
- Busducts
- Tubular Busbars for sub-stations and switchyards

## Dimension Range

- Flats: upto 368.3mm width.
- Channels: upto 292.1mm width.
- Tubular: upto 252.4mm OD.

## Why Hindalco Aluminium Busbars?

- Manufactured from high quality billets made from in-house virgin metal and through state-of-the-art Wagstaff AirSlip™ technology.
- Superior quality billet with tighter Fe control, ensures guaranteed electrical conductivity.
- Traceability of material right from metal stage.
- Time-tested, well established manufacturing process and QA systems ensure adherence to the standards.
- Comprehensive Testing Facilities.
- Customer specific solution.
- Right physical properties ensure smooth bending free of cracks.
- High degree of dimensional controls enable superior contacts which is important for current carrying conductors - hence long life.
- The Busbars come in automated packing and customised bundle sizes.
- Manufacturing units at Renukoot and Alupuram are ISO 9001 : 2008, ISO 14001-2004 & OHSAS 14001-2007 certified.



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