

Alloy 6101

6000 series | Reference sheet | Data checked 14 October 2026

A heat-treatable electrical extrusion alloy for bus conductors. Temper selection balances strength, bending behaviour and conductivity.

Scope: Selected reference facts; incomplete alloy coverage

This reference sheet is not a material certificate, procurement specification or source of design allowables. Values apply only to their listed form, temper and condition. Confirm current requirements with the supplier and governing standard.

Forms and tempers

Forms: Busbar; Extruded profiles; Rod and bar; Tube and pipe

Tempers in record: F, T6, T61, T63, T64, T65

Selected physical properties

Electrical conductivity: 55 % IACS

Temper: T6 | Form: Extrusion | Condition: 20 °C; section 3.20-12.50 mm

Basis: source-minimum | Verification: single-source | Source: hydro6101 | Checked: 2026-10-14

Thermal conductivity: 218 W/(m·K)

Temper: T6 | Form: Extrusion | Condition: 25 °C

Basis: typical | Verification: single-source | Source: hydro6101 | Checked: 2026-10-14

Selected mechanical properties

T6 | Extrusion

Tensile strength	Yield / proof strength	Thickness / specimen scope
200 MPa	170 MPa	3.20-12.50 mm

Condition: Supplier reference; thickness of tensile specimen section; not a certificate or design allowable

Basis: source-minimum | Verification: single-source | Source: hydro6101 | Checked: 2026-10-14

Alloy 6101 / Composition and sources

Selected chemistry

No chemistry values published in this partial record.

Applications and selection guidance

Applications: Electrical conductors; Power transmission

Specify electrical conductivity as well as strength. T61, T63 and T64 have alloy-specific processing objectives. Check joint design and operating temperature independently of a simple resistance calculation.

Source register

hydro6101 | Hydro • 6101 electrical extrusions

Revision / access scope: 2019 document; revision not transcribed | Checked: 2026-10-14

https://www.hydro.com/globalassets/01-products--services/extruded-profiles/americas/ena-resources/alloy-data-sheets/hydro_2019_data_sheet_6101.pdf

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