

Alloy 6063

6000 series | Reference sheet | Data checked 14 October 2026

A heat-treatable extrusion alloy selected for architectural shapes, visible finishes and heat sinks. Surface requirements should be specified separately from mechanical properties.

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: Extruded profiles; Tube and pipe; Heat sinks

Tempers in record: O, T1, T4, T5, T6

Selected physical properties

Density: 0.097 lb/in³

Temper: Not specified | Form: Extrusion | Condition: Temperature not specified

Basis: typical | Verification: single-source | Source: hydro6063 | Checked: 2026-10-14

Thermal conductivity: 201 W/(m·K)

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

Basis: typical | Verification: single-source | Source: hydro6063 | Checked: 2026-10-14

Selected mechanical properties

T5 | Extrusion

Tensile strength	Yield / proof strength	Thickness / specimen scope
150 MPa	110 MPa	≤12.50 mm

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

Basis: source-minimum | Verification: single-source | Source: hydro6063 | Checked: 2026-10-14

T6 | Extrusion

Tensile strength	Yield / proof strength	Thickness / specimen scope
205 MPa	170 MPa	≤3.20 mm

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

Basis: source-minimum | Verification: single-source | Source: hydro6063 | Checked: 2026-10-14

Alloy 6063 / Composition and sources

Selected chemistry

Element	Published limit / value	Provenance
Si	0.2-0.6 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Fe	Maximum 0.35 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Cu	Maximum 0.1 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Mn	Maximum 0.1 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Mg	0.45-0.9 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Cr	Maximum 0.1 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Zn	Maximum 0.1 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Ti	Maximum 0.1 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Other each	Maximum 0.05 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Other total	Maximum 0.15 wt %	Basis: composition-limit Verification: single-source Source: hydro6063 Checked: 2026-10-14
Al	Remainder	Basis: remainder Verification: single-source Source: hydro6063 Checked: 2026-10-14

This is selected chemistry, not a complete composition specification. Unlisted elements must not be assumed to be zero.

Applications and selection guidance

Applications: Architecture; Electrical components; Heat sinks

State the exposed faces, finish and protective packaging in the enquiry. Weld regions may lose strength. T5 and T6 denote different processing histories; use the exact supplied condition.

Source register

hydro6063 | Hydro • 6063 extrusions

Revision / access scope: 2026/01 (June 2026) | Checked: 2026-10-14

https://www.hydro.com/globalassets/01-products--services/extruded-profiles/americas/ena-resources/alloy-data-sheets/hydro_2026_data_sheet_6063-rev-062026.pdf

Source facts are presented in an original editorial layout. Source publications may change; full source tables and imagery are not reproduced. This partial sheet does not imply interchangeability between alloy designations or certification of any supplied product.