

Alloy 3003

3000 series | Reference sheet | Data checked 14 October 2026

A non-heat-treatable manganese alloy referenced for tube applications in condensers and heat-exchange equipment. Cold-work condition changes its mechanical behaviour.

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: Tube and pipe

Tempers in record: O, H14

Selected physical properties

Density: 2730 kg/m³

Temper: Not specified | Form: Tube and pipe | Condition: 20 °C

Basis: typical | Verification: single-source | Source: kaiser3003 | Checked: 2026-10-14

Thermal conductivity: 193 W/(m·K)

Temper: O | Form: Tube and pipe | Condition: 20 °C

Basis: typical | Verification: single-source | Source: kaiser3003 | Checked: 2026-10-14

Selected mechanical properties

O | Tube and pipe

Tensile strength	Yield / proof strength	Thickness / specimen scope
110 MPa	40 MPa	Material thickness unspecified; elongation basis 4D

Condition: Supplier reference; not a design allowable or certificate.

Basis: typical | Verification: single-source | Source: kaiser3003 | Checked: 2026-10-14

H14 | Tube and pipe

Tensile strength	Yield / proof strength	Thickness / specimen scope
152 MPa	145 MPa	Material thickness unspecified; elongation basis 4D

Condition: Supplier reference; not a design allowable or certificate.

Basis: typical | Verification: single-source | Source: kaiser3003 | Checked: 2026-10-14

Alloy 3003 / Composition and sources

Selected chemistry

No chemistry values published in this partial record.

Applications and selection guidance

Applications:

Use the actual tube condition and specification. The source contains a malformed copper value and an unusual tensile-specimen diameter; composition and that specimen-size detail remain withheld pending clarification.

Source register

kaiser3003 | Kaiser 3003 tube and pipe

Revision / access scope: 05/06 | Checked: 2026-10-14

https://online.kaiseraluminum.com/depot/PublicProductInformation/Document/1036/Kaiser_Aluminum_3003_Tube_and_Pipe.pdf

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