MATERIAL DATA SHEET

Aluminum 3003-H12 plate and sheet (QQ-A-250/2E)

Historical Aluminum 3003-H12 plate and sheet requirements from public-release QQ-A-250/2E Table II.

Field	Value
Material ID	usfed-3003-h12-sheet-plate
Category	Metal
Condition	Aluminum 3003-H12, historical QQ-A-250/2E minimums | plate and sheet
Unit system	Common SI
Unit contract	Material properties stored in SI engineering units.
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Source and Validity

Field	Value
Quality	Standard minimum
Design release allowed	No
Source family	Government materials specification
Confidence	Standard minimum
License	Open
Source note	Independent transcription from official public-release historical federal specifications.
Citation	U.S. Federal Specification QQ-A-250/2E, Aluminum Alloy 3003, Plate and Sheet, 8 July 1983, Table II, PDF page(s) 3; official DLA document record https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=50869. DLA identifies the document as Distribution Statement A.
Valid temperature	21 ... 21 degC (Room-temperature historical federal-specification requirements limited to the exact alloy, temper, product form, size range and direction stated by this card.)
Valid pressure	Pressure dependence is not represented.
Valid phase / condition	Aluminum 3003-H12, historical QQ-A-250/2E minimums
Uncertainty	Historical specified values with explicit SI conversion. Some cards conservatively aggregate multiple table thickness bands; see property applies_to text.
Last reviewed	2026-08-02
Reviewer	scripts/import_us_federal_aluminum_public.py
Review status	Checked
Review scope	Checked official DLA record identity and Distribution Statement A, PDF hash, revision, Table II temper/form/size scope, minimum/maximum semantics, and SI conversions.
Notes	Canceled historical specification; not a current supplier certificate or design allowable.
License ID	US-DOD-DISTRIBUTION-STATEMENT-A

Field	Value
License URL	https://www.dodcui.mil/Distribution-Statements/
Attribution	U.S. Federal Government / Defense Logistics Agency

Material Condition

Field	Value
Condition	Aluminum 3003-H12, historical QQ-A-250/2E minimums
Temper	H12
Heat treatment	as defined by the historical temper designation
Product form	plate and sheet
Thickness / diameter range	0.017-2.000 in (0.4318-50.8 mm)
Test direction	longitudinal / parallel to direction of working
Processing route	rolled
Temperature range	21 ... 21 degC
Notes	Room-temperature historical federal-specification requirements limited to the exact alloy, temper, product form, size range and direction stated by this card. Confirm a current procurement specification and material test report before use.

Properties

Mechanical

Property	Value	Unit	Type	Applies to
Ultimate tensile strength, L	117.211	MPa	Historical Specified Minimum	Aluminum 3003-H12; plate and sheet; 0.017-2.000 in (0.4318-50.8 mm); longitudinal/parallel-to-working direction; Conservative whole-card aggregation: each retained minimum is the lowest requirement over the stated full thickness range; a maximum is retained only when it applies to every listed sub-band.
Maximum ultimate tensile strength, L	158.579	MPa	Historical Specified Maximum	Aluminum 3003-H12; plate and sheet; 0.017-2.000 in (0.4318-50.8 mm); longitudinal/parallel-to-working direction; Conservative whole-card aggregation: each retained minimum is the lowest requirement over the stated full thickness range; a maximum is retained only when it applies to every listed sub-band.
Tensile yield strength, L	82.737	MPa	Historical Specified Minimum	Aluminum 3003-H12; plate and sheet; 0.017-2.000 in (0.4318-50.8 mm); longitudinal/parallel-to-working direction; Conservative whole-card aggregation: each retained minimum is the lowest requirement over the stated full thickness range; a maximum is retained only when it applies to every listed sub-band.
Elongation, L	3	%	Historical Specified Minimum	Aluminum 3003-H12; plate and sheet; 0.017-2.000 in (0.4318-50.8 mm); longitudinal/parallel-to-working direction; Conservative whole-card aggregation: each retained minimum is the lowest requirement over the stated full thickness range; a maximum is retained only when it applies to every listed sub-band.

Engineering note: seed solid-material values are reference values only. Verify against the project material specification or supplier data sheet before release.