MATERIAL DATA SHEET

AA6262 6 mm base plate material inputs (CC BY source-reported)

Low-confidence source-reported strength, elongation and HV inputs for exact-labeled AA6262 base plate.

Field	Value
Material ID	hindawi-aa6262-base-plate-material-input
Category	Metal
Condition	source-labeled AA6262 base plate before friction-stir welding | plate
Unit system	Common SI
Unit contract	Material properties stored in SI engineering units.
Generated	2026-11-15 23:01

Source and Validity

Field	Value
Quality	Catalog record
Design release allowed	No
Source family	Catalog record
Confidence	Unknown
License	Open
Source note	Exact-labeled AA6262 base-material inputs from a CC BY 4.0 article, retained with a prominent source-consistency warning.
Citation	S. Vijayakumar, S. Anitha, R. Arivazhagan, Ashebir Dingeto Hailu, T. V. Janardhana Rao, and Hari Prasadarao Pydi, Wear Investigation of Aluminum Alloy Surface Layers Fabricated through Friction Stir Welding Method, Advances in Materials Science and Engineering 2022, 4120145, https://doi.org/10.1155/2022/4120145.
Valid temperature	The base-material property test temperature is not stated.
Valid pressure	Pressure dependence is not represented as a general material function.
Valid phase / condition	source-labeled AA6262 base plate before friction-stir welding
Uncertainty	Only the four source-labeled AA6262 base-plate inputs in Table 1 are retained. The paper's prose assigns chemistry ranges to AA6262 and AA5456 that conflict with the registered alloy identities and appear interchanged; those chemistry statements are excluded. Temper, procurement condition, direction, test method, replicate count and scatter are not stated, so confidence remains unknown. These values are not a product standard, supplier guarantee, certificate or design allowable.
Last reviewed	2026-08-03
Reviewer	scripts/import_additional_open_aluminum_public.py
Review status	Checked

Field	Value
Review scope	Checked the article-level CC BY 4.0 grant, DOI and pinned-file hash, exact alloy identity, condition/form/geometry, source value location, and measured or fitted property semantics.
Notes	Only the four source-labeled AA6262 base-plate inputs in Table 1 are retained. The paper's prose assigns chemistry ranges to AA6262 and AA5456 that conflict with the registered alloy identities and appear interchanged; those chemistry statements are excluded. Temper, procurement condition, direction, test method, replicate count and scatter are not stated, so confidence remains unknown. These values are not a product standard, supplier guarantee, certificate or design allowable.
License ID	CC-BY-4.0
License URL	https://creativecommons.org/licenses/by/4.0/
Attribution	S. Vijayakumar et al.

Material Condition

Field	Value
Condition	source-labeled AA6262 base plate before friction-stir welding
Temper	not stated; do not infer T6, T8 or T9
Heat treatment	not stated for the base plate
Product form	plate
Thickness / diameter range	6 mm thick x 50 mm wide x 100 mm long source plate
Test direction	not stated
Processing route	procured AA6262 base plate before the article's dissimilar AA6262/AA5456 friction-stir welding
Temperature range	The base-material property test temperature is not stated.
Notes	Only the four source-labeled AA6262 base-plate inputs in Table 1 are retained. The paper's prose assigns chemistry ranges to AA6262 and AA5456 that conflict with the registered alloy identities and appear interchanged; those chemistry statements are excluded. Temper, procurement condition, direction, test method, replicate count and scatter are not stated, so confidence remains unknown. These values are not a product standard, supplier guarantee, certificate or design allowable.

Properties

Mechanical

Property	Value	Unit	Type	Applies to
Ultimate tensile strength	260.0	MPa	Source Reported Material Input Screening	source-labeled AA6262 base plate before dissimilar friction-stir welding; 100 mm x 50 mm x 6 mm plate; temper, test direction, mechanical-test method and test temperature are not stated
Tensile yield strength	206.0	MPa	Source Reported Material Input Screening	source-labeled AA6262 base plate before dissimilar friction-stir welding; 100 mm x 50 mm x 6 mm plate; temper, test direction, mechanical-test method and test temperature are not stated
Elongation	12.0	%	Source Reported Material Input Screening	source-labeled AA6262 base plate before dissimilar friction-stir welding; 100 mm x 50 mm x 6 mm plate; temper, test direction, mechanical-test method and test temperature are not stated
Vickers hardness	85.0	HV	Source Reported Material Input Screening	source-labeled AA6262 base plate before dissimilar friction-stir welding; 100 mm x 50 mm x 6 mm plate; temper, test direction, mechanical-test method and test temperature are not stated

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