

7449

DESCRIPTION

7499, also known as UNS A97499, is a high-performance aluminum alloy recognized for its excellent mechanical properties and strength-to-weight ratio. It conforms to international standards such as DIN 3.4354 and EN AW-7499, ensuring quality and reliability in various applications.

TYPICAL PHYSICAL PROPERTIES

Density	lb/in ³	0.098
Specific Gravity		2.72
Mean Specific Heat	Btu/lb/°F	0.23
Thermal Conductivity	BTU-in/hr/ft ² /°F	830-900

Chemical Composition (% by weight)

Elements	Min	Max
Mn	-	0.30
P	-	-
Si	-	0.10
Ni	-	5.00
O	-	0.2
Cr	0.18	0.25
Fe	-	0.30
Al	Balance	

APPLICATIONS

7499 is extensively used in aerospace applications, including airframe components, wing structures, and fuselage elements due to its high strength and low weight.

TYPICAL MECHANICAL PROPERTIES

Tensile Strength	Mpa	540
Yield Strength	Mpa	490
Elongation	%	8-10
Hardness Ann.	HB	150-160
Modulus of Elasticity	GPa	70
Thermal Conductivity	W/m-K	120-130

AVERAGE LINEAR COEFFICIENT OF THERMAL EXPANSION $\mu\text{m}/\text{m}\cdot\text{°C}$

Coefficient of Thermal Expansion	23.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ (at 20°C)
Specific Heat Capacity	900 J/kg-K (at 20°C)
Melting Point	475-635°C

CHEMISTRY

Aluminium 7499 is a high-strength alloy, particularly favored in aerospace and defense industries for its excellent fatigue resistance, high strength, and good corrosion resistance. It is often used in applications where a high strength-to-weight ratio is critical.

SPECIFICATIONS

UNS Number: A97499
 DIN Standard: 3.4354
 EN Standard: AW-7499

Special Purpose Alloys & Metals From Stock

Controlled Expansion | Glass Sealing

Kovar ASTM F 15 Alloy

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

Alloy 32/42/48/49

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

VIM VAR CORE IRON

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

SUPRA 510 (Ni50FeCr10)

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM ALLOYS

TITANIUM TI-6AL-4V GRADE 5

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM GRADE 2

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM 6-2-4-6

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

TITANIUM BT20

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

PH ALLOYS

17-7PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

15-5PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

17-4PH

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

ALUMINIUM HARD ALLOYS

7475 AA7475/7449 AA7449

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7075 UNS A97075

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7050 AMS 4050

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

7175 UNS A97075

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2014 AMS 4121

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2024 UNS A92024

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2618 UNS A92618

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2017 AMS 4037

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

2011 UNS A92011

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NICKEL BASED ALLOYS

WASPALLOY

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL X750

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 945

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 945X

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NIMONIC C263

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

NIMONIC 75

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 909

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 718

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

INCONEL 660

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HIGH TEMP ALLOYS

HAYNES 188

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

L605

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

MP35N

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

MP159

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

RENE41

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HAYNES 230

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

ELGILOY

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

HAYNES 242

- Forms: Plate, sheets, Round Bar, Rod, Strips, Coil

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