

# 2219

## DESCRIPTION

2219, also known as UNS A92219, is a high-strength aluminum alloy renowned for its exceptional mechanical properties, especially at elevated temperatures. It adheres to several international standards, including AMS 4031/4112/4162, DIN 3.1355, EN AW-2219, and BS L163, ensuring reliability.

### TYPICAL PHYSICAL PROPERTIES

Density	g/cm <sup>3</sup>	2.84
	lb/in <sup>3</sup>	0.103
Melting Point	°F	1010-1190
	°C	543 – 643
Specific Heat	J/g-°C	0.864
	BTU/lb-°F	0.207

### Chemical Composition (% by weight)

Elements	Min	Max
Si	-	0.20
Fe	-	0.30
Cu	5.80	6.80
Mn	0.20	0.40
Mg	-	0.02
Zn	-	0.10
Ti	0.02	0.10
V	0.05	0.15
Zn	0.10	0.25
Al	Balance	

## APPLICATIONS

2219 is widely used in aerospace applications, including airframe structures, fuel tanks, and other components that require high strength and lightweight materials.

### TYPICAL MECHANICAL PROPERTIES

Tensile Strength	MPa	414
	psi	60000
Yield Strength	MPa	290
	psi	42000
Elongation		10%
Modulus of Elasticity	GPa	73.1
	ksi	10600
Hardness	Brinell	115
	Knoop	145
	Rockwell A	45.5
	Rockwell B	72
	Vickers	130
Poisson's Ratio		0.33
Fatigue Strength	MPa	103
	ksi	15000

## Availability

- Sheets
- Plates
- Round Bar
- Rod
- Strips
- Coil

## 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

**JUST-IN-TIME DELIVERY:** All of our standard stock items can be delivery as per commitment. All materials are certified with shipment. For special orders and non-stock materials, contact our sales team for our competitive pricing and delivery.