

2017

DESCRIPTION

Aluminum Alloy 2017 is a high-strength alloy primarily known for its excellent mechanical properties, making it suitable for various demanding applications, particularly in the aerospace and automotive industries.

APPLICATIONS

Used in military vehicles and aircraft due to its high strength and lightweight properties. Employed in the construction of missile casings and other defense-related applications.

TYPICAL PHYSICAL PROPERTIES

| | | |
|------------------------|-------------------------------|------------|
| Density | g/cc | 2.79 |
| | lb/in ³ | 0.101 |
| Melting Point | °F | 955 - 1185 |
| | °C | 513 - 641 |
| Specific Heat Capacity | J/g-°C | 0.88 |
| | BTU/lb-°F | 0.21 |
| Thermal Conductivity | W/m-K | 134 |
| | BTU-in/hr-ft ² -°F | 930 |

Chemical Composition (% by weight)

| Elements | Min | Max |
|----------|------|------|
| Si | 0.20 | 0.80 |
| Fe | - | 0.70 |
| Cu | 3.5 | 4.5 |
| Mn | 0.40 | 1.0 |
| Mg | 0.40 | 1.0 |
| Cr | - | 0.10 |
| Zn | - | 0.25 |
| Zr+Ti | - | 0.25 |

TYPICAL MECHANICAL PROPERTIES

| | | |
|-----------------------|------------|-------|
| Tensile Strength | MPa | 427 |
| | psi | 6200 |
| Yield Strength | MPa | 276 |
| | psi | 40000 |
| Elongation | | 22% |
| Modulus of Elasticity | GPa | 72.4 |
| | ksi | 10500 |
| Hardness | Brinell | 105 |
| | Knoop | 132 |
| | Rockwell A | 42.5 |
| | Rockwell B | 66 |
| Fatigue Strength | Vickers | 118 |
| | MPa | 124 |
| Poisson's Ratio | psi | 18000 |
| | | 0.33 |

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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