

AIRCRAFT ALUMINUM

7475 Aircraft Aluminum Plate

7475 aluminum alloy, part of the 7000 series aluminum alloys, is widely used in aerospace. Supplied in both bare and clad forms, it's typically annealed for optimal machinability. Offering high strength skin to 7075 aluminum but with superior fracture toughness, it's prized for its corrosion resistance and fatigue properties. Ideal for applications demanding exceptional mechanical strength, fracture toughness, and resistance to fatigue crack propagation, such as aircraft fuselage skin.

Specifications of 7475 T761 T7351 Aluminum Sheet Plate:

| Product | 7475 Aircraft Aluminum Sheet Plate | | | | |
|---------------------------|---|----------------------------------|--|--|--|
| Hot selling temper | T61, T761, T7651, T651, T7351 | | | | |
| 7475 aluminum sheet | thickness:0.01" -0.24" (0.2mm-6mm) | Width:35.4" -104" (900mm-2650mm) | | | |
| 7475 aluminum plate | thickness:0.24" -9.84" (6mm-250mm) | Width:35.4" -104" (900mm-2650mm) | | | |
| 7475 cast aluminum plate | Thickness:0.24"-15.75"(6mm-400mm) | Width:52" -73.2" (1320mm-1860mm) | | | |
| 7475 aluminum armor plate | Thickness:0.32" -9.84" (8mm-250mm) | Width:35.4" -104" (900mm-2650mm) | | | |
| Surface treatment | Mill finish, Bright, polished, hair line, brush, sand blast, checkered, embossed, etching, etc. | | | | |
| Curface requirements | The surface is smooth, free of defects such as scratches and oxide skin to ensure | | | | |
| Surface requirements | that the aluminum plate will not be corroded or damaged during use | | | | |
| Tolerance of flatness | On the longest side of the plate, the flatness tolerance is 3mm/m; On the shortest | | | | |
| Toterance of Hattless | side of the plate, the flatness tolerance is 2mm/m. | | | | |

Types of 7475 Aircraft Aluminum Sheet Plate:

| 7475-T61 Sheet AMS 4084 |
|--|
| 7475-T61 Sheet Alclad AMS 4207 |
| 7475-T651 Plate AMS 4090 |
| 7475-T761 Alclad Sheet AMS 4100 AMS4100 DMS2234 LN9073 |
| 7475-T761 Sheet AMS 4085 AMS4085 |
| 7475-T7651 Plate AMS 4089 |
| 7475-T7351 Plate AMS 4202 |
| 7475 O Clad DMS2234 |

Chemical Composition of 7475 Aluminum Plate:

| | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Al |
|--|------|------|-----------|------|----------|-----------|----|----------|------|-----------|
| | 0.10 | 0.12 | 1.20-1.90 | 0.06 | 1.9-2.60 | 0.18-0.25 | 1 | 5.2-6.20 | 0.06 | Remainder |

Mechanical property of 7475 Aluminum Plate:











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|-------------------|--------|-----------|-----------|-----|-------------------|-------|------|-------|------|
| Туре | Temper | Thickness | Direction | Rm | Rp0.01 | Rp0.2 | R0.7 | R0.85 | A/% |
| | | mm | Direction | MPa | | | | | |
| 7475 | 0 | 2.0 | L | 203 | | 102 | | | 18 |
| aluminum | 0 | | LT | 204 | | 87 | | | 17 |
| sheet | TC | | L | 548 | 337 | 487 | 492 | 478 | 14 |
| | Т6 | | LT | 546 | 345 | 476 | 484 | 465 | 15.3 |
| 7475 | T76 | 2.0 | L | 791 | 293 | 428 | 430 | 419 | 11.4 |
| aluminum sheet | | | LT | 485 | 319 | 418 | 421 | 410 | 10.6 |
| 7475 | T651 | 38 | L | 560 | 423 | 499 | 503 | 497 | 13.4 |
| aluminum | | | LT | 570 | 386 | 492 | 500 | 478 | 14.2 |
| plate | T7651 | | L | 522 | 370 | 453 | 455 | 448 | 14.1 |
| | | | LT | 526 | 363 | 452 | 457 | 442 | 12.9 |
| | T7254 | | L | 517 | 349 | 443 | 448 | 432 | 14.0 |
| | T7351 | | LT | 510 | 353 | 439 | 442 | 435 | 14.6 |

Features of Aircraft Grade7475 Aluminum Plate:

- High strength:

7475 aluminum plate is a high-strength aluminum alloy, and its tensile strength can reach 500-600MPa, or even higher, which is much higher than ordinary aluminum alloys.

- Good corrosion resistance:

7475 aluminum alloy plate has good corrosion resistance by adding other alloy elements, and can resist corrosion in different environments, such as seawater, acid rain, etc.

- Good machinability:

7475 aluminum sheet can be easily processed, formed and welded to meet the needs of different application scenarios.

- Good wear resistance:

7475 aluminum plate has high surface hardness and excellent wear resistance, and performs well in high stress and high friction environments.

- Good high-temperature performance:

7475 aluminum alloy sheet performs well in high-temperature environments, has high thermal stability, and is not easy to deform or lose strength.

Application of 7475 Aluminum Plate in Aviation:

- Fuselage parts
- Skins
- Bulkheads
- Wing components
- Upper and lower skins
- Spars
- Center structures







