

# Machine construction, High-strength constructions, Aerospace, Defence Industry

Makine yapımı, Yüksek mukavemetli konstrüksiyonlar, Havacılık ve Uzay, Savunma Sanayi

This alloy is one of the highest strength aluminium alloys in the heat treated condition. With its high strength and excellent fatigue resistance, it is widely used in structures and components in the aircraft and transport industry.

Bu alaşım ısıtılmış durumda en yüksek mukavemetli alüminyum alaşımlardan biridir. Yüksek mukavemeti ve mükemmel yorulma direnci ile uçak ve ulaşım endüstrisindeki yapılarda ve bileşenlerde yaygın kullanılır.

| Unit mm  |  |  |  |  |
|----------|---|---|---|--|
| Extruded | 20 - 170  | 20 - 120  | 5 - 105   | 20 - 145   |

## Minimum Mechanical Properties / Min. Mekanik Özellikler

| Temper                      | Diam. mm      | Rm  |     | Rp0,2 |         | HBW |
|-----------------------------|---------------|-----|-----|-------|---------|-----|
|                             |               | MPa | MPa | A%    | Typical |     |
| O, H111                     | ≤ 200         | 250 | 150 | 12    | 47      |     |
| EXTRUDE<br>T3, T3510, T3511 | ≤ 50          | 450 | 310 | 8     | 120     |     |
|                             | 50 < D ≤ 50   | 440 | 300 | 8     | 120     |     |
|                             | 100 < D ≤ 200 | 420 | 280 | 8     | 120     |     |
|                             | 200 < D ≤ 250 | 400 | 270 | 8     | 120     |     |
| T8, T8510, T8511            | ≤ 150         | 455 | 380 | 5     | 130     |     |

## Properties / Özellikler

T3

|                                     |   |   |   |   |
|-------------------------------------|---|---|---|---|
| Machinability                       | ■ | ■ | ■ | ■ |
| Protective anodizing                | ■ | ■ | ■ | ■ |
| Decorative anodizing                | ■ | ■ | ■ | ■ |
| Hard anodizing                      | ■ | ■ | ■ | ■ |
| Resistance to atmospheric corrosion | ■ | ■ | ■ | ■ |
| Resistance to marine corrosion      | ■ | ■ | ■ | ■ |
| MIG-TIG weldability                 | ■ | ■ | ■ | ■ |
| Resistance weldability              | ■ | ■ | ■ | ■ |
| Brazing weldability                 | ■ | ■ | ■ | ■ |
| Plastic formability when cold       | ■ | ■ | ■ | ■ |
| Plastic formability when hot        | ■ | ■ | ■ | ■ |



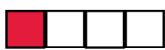
Excellent  
Çok İyi



Good  
İyi



Acceptable  
Kabul Edilebilir



Not recommended  
Önerilmez



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# 2024

2015/863 AMENDING ANNEX II TO  
DIRECTIVE 2011/65/EU

Colour Code  
EU - USA  
Orange



## Chemical Composition / Kimyasal Bileşenler

|        |                      |
|--------|----------------------|
| Si     | ≤ 0,50               |
| Fe     | ≤ 0,50               |
| Cu     | 3,80 - 4,90          |
| Mn     | 0,30 - 0,90          |
| Mg     | 1,20 - 1,80          |
| Cr     | ≤ 0,10               |
| Ni     | -                    |
| Zn     | ≤ 0,25               |
| Ti     | ≤ 0,15               |
| Pb     | -                    |
| Bi     | -                    |
| Others | Each 0,05 Total 0,15 |
| Al     | Remainder            |

## Physical Properties / Fiziksel Özellikler

|  |                       |        |
|--|-----------------------|--------|
| Density                                | Kg/ dm <sup>3</sup>   | 2,79   |
| Modulus of elasticity                  | Mpa                   | 70.000 |
| Coefficient of thermal expansion       | x10 <sup>-6</sup> /°C | 23,1   |
| Thermal conductivity at 20°C           | W / mK                | 120    |
| Typical electrical resistivity at 20°C | Ω mm <sup>2</sup> / m | 0,057  |