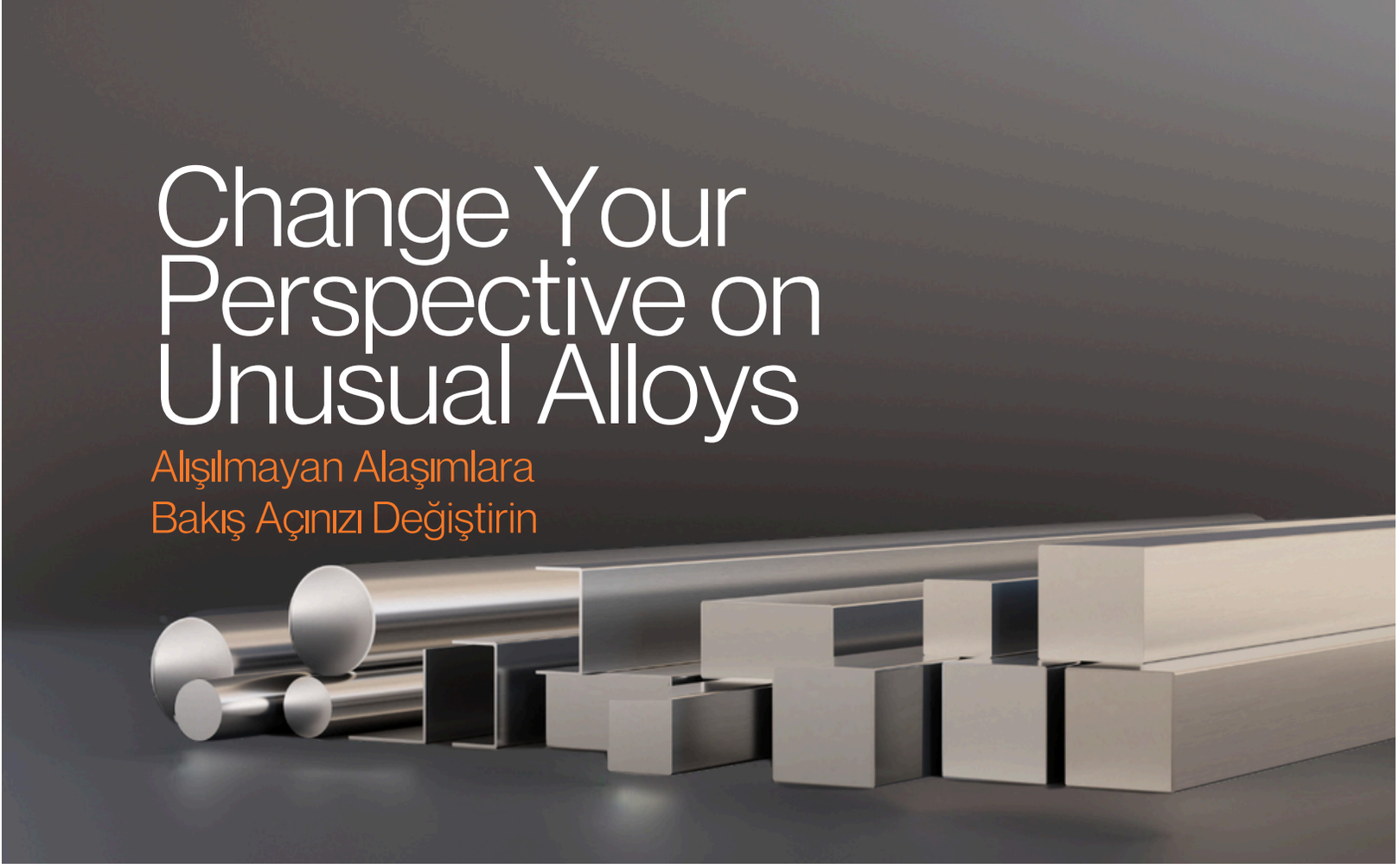
Change Your Perspective on Unusual Alloys

Alışılmayan Alaşımlara Bakış Açınızı Değiştirin



2007
ALLOY 2007

Colour Code
EU - USA
Black

2011
ALLOY 2011

Colour Code
EU Red
Colour Code
USA Brown

2017A
ALLOY 2017

Colour Code
EU - USA
Green

2024
ALLOY 2024

Colour Code
EU - USA
Orange

5083
ALLOY 5083

Colour Code
EU - USA
Signal Brown

5754
ALLOY 5754

Colour Code
EU - USA
TrafficYellow

6061
ALLOY 6061

Colour Code
EU - USA
Blue

6082
ALLOY 6082

Colour Code
EU - USA Blue

7075
ALLOY 7075

Colour Code
EU Violet
Colour Code
USA Black

6060
ALLOY 6060

Colour Code
EU - USA
Colourless

6005
ALLOY 6005

Colour Code
EU - USA
Turquise

6063
ALLOY 6063

Colour Code
UAS - EU
Colourless

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Machinery and Automotive Industry, Aircraft Parts, Defence Industry Ammunition Components, Turned and Milled Parts

Makine ve Otomotiv Endüstrisi, Uçak Parçaları, Savunma Sanayi Mühimmat Bileşenleri, Tornalanmış ve Frezelenmiş parçalar

2007

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

Colour Code
EU - USA
Black

Among the aluminium alloys, 2007 has the highest mechanical properties for high speed automatic lathes.
This alloy is the alloy most often selected when machinability and high mechanical properties are required. It has low corrosion resistance and is not suitable for welding.

Alüminyum alaşımları arasında 2007, yüksek hızlı otomatik tornalar için en yüksek mekanik özelliklere sahiptir.
Bu alaşım, işlenebilirlik ve yüksek mekanik özellikler gerektiğinde en sık seçilen alaşımdır. Düşük korozyon direncine sahiptir ve kaynak için uygun değildir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	T4,T4510,T4511	≤ 80	370	250	8	95
	T4,T4510,T4511	80 < D ≤ 200	340	220	8	95
	T4,T4510,T4511	200 < D ≤ 250	330	210	7	95

Chemical Composition / Kimyasal Bileşenler

Si	≤ 0,80
Fe	≤ 0,80
Cu	3,30 - 4,60
Mn	0,50 - 1,00
Mg	0,40 - 1,80
Cr	≤ 0,10
Ni	≤ 0,20
Zn	≤ 0,80
Ti	≤ 0,20
Pb	0,80 - 1,00
Bi	≤ 0,20
Sn	≤ 0,20
Others	Each 0,10 Total 0,30
Al	Remainder

Properties / Özellikler	T4
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	■■□□

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,85
Modulus of elasticity	Mpa	71.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,5
Thermal conductivity at 20°C	W / mK	140
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,057

■■■■ **Excellent** *Çok İyi*
■■■□ **Good** *İyi*
■■□□ **Acceptable** *Kabul Edilebilir*
■□□□ **Not recommended** *Önerilmez*

Machine construction, Aerospace, Defence Industry

Makine yapımı, Havacılık ve Uzay, Savunma Sanayi

2011

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

Colour Code EU Red

Colour Code USA Brown

Small addition of copper and lead improve strength and give excellent machineability. Not suitable for welding or anodising.

Bakır ve kurşunun az miktarda eklenmesi mukavemeti artırır ve mükemmel işlenebilirlik sağlar. Kaynak veya eloksal kaplama için uygun değildir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	T4	≤ 200	275	125	14	95
	T6	≤ 75	310	230	8	110
	T6	75 < D ≤ 200	295	195	6	110

Chemical Composition / Kimyasal Bileşenler

Si	≤ 0,40
Fe	≤ 0,70
Cu	5,00 - 6,00
Mn	-
Mg	-
Cr	-
Ni	-
Zn	≤ 0,30
Ti	-
Pb	0,20 - 0,40
Bi	0,20 - ,060
Others	Each 0,05 Total 0,15
Al	Remainder

Properties / Özellikler	T6
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	■■□□

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,83
Modulus of elasticity	Mpa	70.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	22,9
Thermal conductivity at 20°C	W / mK	172
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,038

■■■■ **Excellent** *Çok İyi*

■■■□ **Good** *İyi*

■■□□ **Acceptable** *Kabul Edilebilir*

■□□□ **Not recommended** *Önerilmez*

High structural resistance components for Aviation and Defense

Havacılık ve Savunma için yüksek yapısal dirençli bileşenler

2017A

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

Colour Code
EU - USA
Green

This alloy offers high mechanical properties and excellent resistance to fatigue. It also has good machinability. However, it is not suitable for automatic lathes as it produces long chips in the machining process. It can be replaced by alloy 2007, which has similar mechanical properties but offers better machinability and higher productivity.

Bu alaşım, yüksek mekanik özelliklere ve yorulmaya karşı mükemmel bir direnç sunar. Ayrıca, işlenebilirlik açısından da oldukça iyidir. Ancak, işleme sürecinde uzun talaşlar oluşturduğundan otomatik torna tezgahları için uygun değildir. Benzer mekanik özelliklere sahip olan ancak daha iyi işlenebilirlik sağlayan ve daha yüksek üretkenlik sunan 2007 alaşımı ile değiştirilebilir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

	Temper	Diam. mm	Rm MPa	Rp0,2 MPa	A%	HBW Typical
	O, H111	≤ 200	250	135	12	45
EXTRUDE	T4,T4510,T4511	25 < D ≤ 75	400	270	10	105
EXTRUDE	T4,T4510,T4511	75 < D ≤ 150	390	260	9	105
EXTRUDE	T4,T4510,T4511	150 < D ≤ 200	370	240	8	105
EXTRUDE	T4,T4510,T4511	200 < D ≤ 250	360	220	7	105

Chemical Composition / Kimyasal Bileşenler

Si	0,20 - 0,80
Fe	≤ 0,70
Cu	3,50 - 4,50
Mn	0,40 - 1,00
Mg	0,40 - 1,00
Cr	≤ 0,10
Ni	-
Zn	≤ 0,25
Zr + Ti	≤ 0,25
Pb	-
Bi	-
Others	Each 0,05 Total 0,15
Al	Remainder

Properties / Özellikler	T4
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*

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,79
Modulus of elasticity	Mpa	75.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,6
Thermal conductivity at 20°C	W / mK	134
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,051

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 ısıl işlem uygulandığı durumda en yüksek mukavemetli alüminyum alaşımlardan biridir. Yüksek mukavemeti ve mükemmel yorulma direnci ile uçak ve ulaşım endüstrisindeki yapılarda ve bileşenlerde yaygın kullanılır.

2024

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

Colour Code
EU - USA
Orange

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	O, H111	≤ 200	250	150	12	47
	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

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

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*

Physical Properties / Fiziksel Özellikler

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

Tool, die and model making, Machine and fixture construction, Tank construction, Shipbuilding, Auto parts, Rail vehicles, Defence Industry, Armour plate, Welded tank trailer, Pipes, Components for Railway

Alet, kalıp ve model yapımı, Makine ve fikstür yapımı, Tank yapımı, Gemi yapımı, Otomobil parçaları, Raylı araçlar, Savunma Sanayi, Zırh Plakası, Kaynaklı tank treyler, Borular, Demiryolu için bileşenler

5083

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

Colour Code
EU - USA
Signal Brown

This alloy has very good welding properties, shows good strength characteristics and In that case cold forming can be performed. Relatively low internal stresses, good core strength values even with large dimensions, very good corrosion resistance to sea water and normal atmosphere.

Bu alaşım çok iyi kaynak özelliklerine sahiptir, iyi mukavemet özelliklerine gösterir ve O durumunda soğuk şekillendirme yapılabilir. Nispeten düşük iç gerilimler, büyük boyutları olsa bile iyi çekirdek gücü değerleri, deniz suyuna ve normal atmosfere karşı çok iyi korozyon direncine sahiptir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	H111	≤ 200	270	110	12	70
	H112	≤ 200	270	125	12	70

Chemical Composition / Kimyasal Bileşenler

Si	≤ 0,40
Fe	≤ 0,40
Cu	≤ 0,10
Mn	0,40 - 1,00
Mg	4,00 - 4,90
Cr	0,05 - 0,25
Ni	-
Zn	≤ 0,25
Ti	≤ 0,15
Pb	-
Bi	-
Others	Each 0,05 Total 0,10
Al	Remainder

Properties / Özellikler	H111
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*

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,66
Modulus of elasticity	Mpa	71.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,8
Thermal conductivity at 20°C	W / mK	117
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,052

Containers, Shipbuilding and Construction Equipment, Tank and boiler construction, Panels, Pressure Vessels and Boilers, Automotive and Automotive Supply Industry, Pipes and tubes for hydraulic applications, Vehicle body, Boat Equipment

Konteyner, Gemi ve İnşaat Ekipmanları, Tank ve kazan yapımı, Paneller, Basınçlı Kaplar ve Kazan, Otomotiv ve Otomotiv Yan Sanayi, Hidrolik uygulamaları için boru ve tüpler, Araç gövdesi, Bot Ekipmaları

5754

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

Colour Code
EU - USA
TrafficYellow

This high-strength alloy has very good welding properties and has very good workability. It shows extremely good resistance to both seawater corrosion and industrially polluted atmosphere.

Yüksek mukavemetli olan bu alaşım çok iyi kaynak özelliklerine ve çok iyi işlenebilirliğe sahiptir. Hem deniz suyu korozyonuna hemde endüstriyel olarak kirli atmosfere karşı son derece iyi direnç gösterir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	H111	≤ 150	180 - 250	80	17	45
	H112	≤ 150	180	80	14	47
		150 < D ≤ 250	180	70	13	47

Chemical Composition / Kimyasal Bileşenler

Si	≤ 0,40
Fe	≤ 0,40
Cu	≤ 0,10
Mn	≤ 0,50
Mg	2,60 - 3,60
Cr	≤ 0,30
Ni	-
Zn	≤ 0,20
Ti	≤ 0,15
Pb	-
Bi	-
Others	Each 0,05
Al	Remainder

Properties / Özellikler	H111			
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	■	■		

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,68
Modulus of elasticity	Mpa	70.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,7
Thermal conductivity at 20°C	W / mK	132
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,043

■■■■ **Excellent** *Çok İyi*

■■■□ **Good** *İyi*

■■□□ **Acceptable** *Kabul Edilebilir*

■□□□ **Not recommended** *Önerilmez*

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Shipbuilding, Rail vehicles, Boiler and container construction, Aerospace applications, Defence Industry, Bridges, Pipes, Transport, Motorboats and Helicopter Propeller Coatings

Gemi yapımı, Raylı araçlar, Kazan ve konteyner yapımı, Havacılık ve Uzay uygulamaları, Savunma Sanayi, Köprüler, Borular, Taşımacılık, Motorbotlar ve Helikopter Pervane Kaplamaları

6061

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

Colour Code
EU - USA
Blue

Weldability makes it perfectly suited for hot forging and anodising. This alloy has medium mechanical properties, but shows high resistance to corrosion.
6061 is one of the most widely used alloys among heat treatable alloys. It is frequently used in heavy-duty structures.
Kaynaklanabilirlik, sıcak dövme ve eloksal kaplama için mükemmel uyum sağlar. Bu alaşım orta mekanik özelliklere sahiptir, ancak korozyona karşı yüksek direnç gösterir.
6061, ısıl işlem uygulanabilien alaşımlar arasında en çok uygulama alanına sahip alaşımlardan biridir. Ağır hizmet yapılarında sıkça kullanılır.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	O, H111	≤ 200	150	110	16	30
	T4	≤ 200	180	110	15	65
	T6	≤ 200	260	240	8	95

Chemical Composition / Kimyasal Bileşenler

Si	0,40 - 0,80
Fe	≤ 0,70
Cu	0,15 - 0,40
Mn	≤ 0,15
Mg	0,80 - 1,20
Cr	0,04 - 0,35
Ni	-
Zn	≤ 0,25
Ti	≤ 0,15
Pb	-
Bi	-
Others	Each 0,05 Total 0,15
Al	Remainder

Properties / Özellikler	T6
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*

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,71
Modulus of elasticity	Mpa	69.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,5
Thermal conductivity at 20°C	W / mK	173
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,037

Shipbuilding, Rail vehicles, Boiler and container construction, Aerospace, Defence Industry, Truck guardrails, Railway wagons heavy structures, Bicycle manufacturing, Hydraulic system parts, Nuclear energy, Awing manufacturing

Gemi yapımı, Raylı araçlar, Kazan ve konteyner yapımı, Havacılık ve uzay, Savunma Sanayi, Kamyon Korkulukları, Demiryolu vagonları ağır yapılar, Bisiklet İmalatı, Hidrolik Sistem parçaları, Nükleer Enerji, Tente İmalatı

6082

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

Colour Code
EU - USA
Blue

Magnesium, Manganese, Silicon and other elements give this alloy many properties, high strength, good machining and good welding. It is the most common general engineering alloy in extruded form. It offers excellent corrosion resistance and has the highest strength of all 6000 series alloys.

Magnezyum, Manganez, Silikon ve diğer elementler bu alaşıma birçok özellik, yüksek mukavemet, iyi işleme ve iyi kaynak sağlar. Ekstrüze formda en yaygın genel mühendislik alaşımıdır. Mükemmle korozyon direnci sunar ve tüm 6000 serisi alaşımlar arasında en yüksek mukavemete sahiptir.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	O, H111	≤ 200	160	110	14	35
	T4	≤ 200	205	110	14	70
	T6	≤ 150	310	260	8	95
	T6	150 < D ≤ 200	280	240	6	95
	T6	200 < D ≤ 250	270	200	6	95

Chemical Composition / Kimyasal Bileşenler

Si	0,70 - 1,30
Fe	≤ 0,50
Cu	≤ 0,10
Mn	0,40 - 1,00
Mg	0,60 - 1,20
Cr	≤ 0,25
Ni	-
Zn	≤ 0,20
Ti	≤ 0,10
Pb	-
Bi	-
Others	Each 0,05 Total 0,15
Al	Remainder

Properties / Özellikler	T6
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	■■■□

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,71
Modulus of elasticity	Mpa	69.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	24
Thermal conductivity at 20°C	W / mK	167
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,037

■■■■ **Excellent** *Çok İyi*
■■■□ **Good** *İyi*
■■□□ **Acceptable** *Kabul Edilebilir*
■□□□ **Not recommended** *Önerilmez*

Aerospace, Defence, Motorcycle and Automotive, Mechanical Industry, Nuclear applications

Havacılık, Savunma, Motosiklet ve Otomotiv, Mekanik Endüstrisi, Nükleer uygulamaları

7075

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

Colour Code EU Violet
Colour Code USA Black

This alloy has extremely high mechanical properties and high resistance to fatigue. Offering superior stress corrosion resistance, 7075 provides very high yield and tensile strengths. This high strength makes it a good alloy for use in the aerospace industry. It is also used in the defence industry with its hard anodised coatings.

Bu alaşım son derece yüksek mekanik özelliklere ve yorulmaya karşı yüksek dirence sahiptir. Üstün gerilme korozyonu direnci sunan 7075 çok yüksek akma ve çekme mukavemetleri sağlar. Bu yüksek mukavemet, havacılık endüstrisinde kullanılan iyi bir alaşım olmasını sağlamaktadır. Sert eloksal kaplamaları ile savunma endüstrisinde yer alır.

Unit mm	●	■	▬	⬢
Extruded	20 - 170	20 - 120	5 - 105	20 - 145

Minimum Mechanical Properties / Min. Mekanik Özellikler

			Rm	Rp0,2		HBW
	Temper	Diam. mm	MPa	MPa	A%	Typical
EXTRUDE	O, H111	≤ 200	275	165	10	60
	T6, T6510, T6511	≤ 100	560	500	7	150
	T6, T6510, T6511	100 < D ≤ 150	550	440	5	150
	T6, T6510, T6511	150 < D ≤ 200	440	400	5	150
	T73, T73510, T73511	≤ 75	475	405	7	135
	T73, T73510, T73511	75 < D ≤ 100	470	390	6	135
	T73, T73510, T73511	100 < D ≤ 150	440	360	6	135

Chemical Composition / Kimyasal Bileşenler

Si	≤ 0,40
Fe	≤ 0,50
Cu	1,20 - 2,00
Mn	≤ 0,30
Mg	2,10 - 2,90
Cr	0,18 - 0,28
Ni	-
Zn	5,10 - 6,10
Ti	≤ 0,20
Pb	-
Bi	-
Others	Each 0,05 Total 0,15
Al	Remainder

Properties / Özellikler	T6
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*

Physical Properties / Fiziksel Özellikler

Density	Kg/ dm^3	2,80
Modulus of elasticity	Mpa	72.000
Coefficient of thermal expansion	$x10^{-6}$ /°C	23,5
Thermal conductivity at 20°C	W / mK	130
Typical electrical resistivity at 20°C	Ω mm^2 / m	0,052

Notes / Drawings:
Notlar / Çizimler:

Weight of Aluminium Bars

in Kg/linear meter (Density 2,8 Kg/dm^3)

Kg/lineer metre cinsinden Alüminyum Çubukların Ağırlıkları

mm	●	■	⬣
20	0,879	1,120	0,969
21	0,969	1,234	1,069
22	1,064	1,355	1,173
23	1,163	1,481	1,282
24	1,266	1,613	1,396
25	1,374	1,750	1,515
26	1,486	1,893	1,679
27	1,603	2,041	1,767
28	1,724	2,195	1,901
29	1,849	2,355	2,039
30	1,979	2,520	2,182
31	2,113	2,690	2,330
32	2,251	2,867	2,483
33	2,394	3,049	2,640
34	2,542	3,236	2,803
35	2,693	3,430	2,970
36	2,850	3,628	3,142
37	3,010	3,833	3,319
38	3,175	4,043	3,501
39	3,344	4,258	3,688
40	3,518	4,480	3,879
41	3,696	4,706	4,076
42	3,879	4,939	4,277
43	4,066	5,177	4,483
44	4,257	5,420	4,694
45	4,552	5,670	4,910
46	4,653	5,924	5,131
47	4,857	6,185	5,356
48	5,066	6,451	5,586
49	5,280	6,722	5,822
50	5,497	7,000	6,062
51	5,719	7,282	6,307
52	5,946	7,571	6,556
53	6,177	7,865	6,811
54	6,412	8,165	7,071
55	6,652	8,470	7,335
56	6,896	8,780	7,604
57	7,144	9,097	7,878
58	7,397	9,419	8,157
59	7,655	9,746	8,441
60	7,916	10,080	8,729
61	8,183	10,418	9,023
62	8,453	10,763	9,321
63	8,728	11,113	9,624
64	9,007	11,468	9,932
65	9,291	11,830	10,245
66	9,579	12,196	10,562
67	9,872	12,569	10,885

mm	●	■	⬣
68	10,169	12,947	11,212
69	10,470	13,330	11,544
70	10,775	13,720	11,881
71	11,096	14,115	12,223
72	11,400	14,515	12,570
73	11,719	14,921	12,922
74	12,042	15,332	13,278
75	12,370	15,750	13,639
76	12,702	16,173	14,006
77	13,038	16,601	14,377
78	13,379	17,035	14,753
79	13,724	17,475	15,133
80	14,074	17,920	15,519
81	14,428	18,370	15,909
82	14,786	18,827	16,305
83	15,149	19,290	16,705
84	15,517	19,756	17,109
85	15,888	20,230	17,519
86	16,264	20,708	17,934
87	16,645	21,193	18,353
88	17,030	21,683	18,778
89	17,419	22,178	19,207
90	17,813	22,680	19,641
91	18,210	23,186	20,080
92	18,613	23,649	20,524
93	19,020	24,217	20,972
94	19,413	24,740	21,426
95	19,837	25,270	21,884
96	20,267	25,805	22,347
97	20,691	26,345	22,815
98	21,120	26,891	23,288
99	21,553	27,442	23,766
100	21,991	28,000	24,248
105	24,245	30,870	26,733
110	26,609	33,880	29,340
120	29,083	-	32,068
120	31,667	-	34,917
125	34,344	-	37,888
130	37,165	-	40,979
135	40,078	-	44,192
140	43,102	-	47,526
145	46,236	-	50,981
150	49,480	-	-
155	52,833	-	-
160	56,297	-	-
165	59,870	-	-
170	63,554	-	-

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