

ALLOY 6060

PRIMARY ALUMINUM - MAGNESTIUM - SILICON ALLOY FOR ALLOY FORGING

Conventional alloy designation: EN AW - 6060 UNI 573-3

Numerical designation: 6060

Typical applications: design and systems extrusions

Chemical composition in weight %

Alloy	Cu	FE	Mn	Mg	Zn	Si	Impurity	Al
6060	0,10	0,10-0,30	0,10	0,35-0,60	0,10	0,30-0,60	0,05-0,15	Remaining

Typical physical properties of extrusions

Alloy	Physical state	Density	Electrical resistance	Thermal conductivity	Melting range	Thermal expansion coefficient	Elasticity coefficient
		Kg/dm ³	Ohm mm ² /mm	W/mK	°C	20-100 °Cx10 ⁻⁶ /°C	N/mm ²
6060	T1 T5 T6	270	0.034 0.031 0.033	193 209 201	615-655	23	69000

Mechanical properties of typical extrusions

Leg	Physical state *	Tensile strength at break	Unit load of deviation from proportionality	Elongation	Brinnel hardness
		R _m N/mm ²	R _{mp0.2} N/mm ²	A %	HB
6060	0 F T1 T5 T6	≤ 140 100 120 185 205	≤ 80 70 145 165	 22 18 16 15	 40 45 60 70

Technological characteristics (indicative)

Physical state	Plastic deformability cold	Tool machinability	Resistance to atmospheric corrosion	Resistance to marine corrosion	Anodization	Weldability
T1 T5 T6	Good Good Sufficient	Not advisable Good Good	Excellent Excellent Excellent	Good Good Good	Excellent Excellent Excellent	Excellent Excellent Excellent

* Physical state

0 extrusion blank

F annealed

T1 cooled subsequent to high temperature plastic forging and natural ageing

T5 cooled subsequent to high temperature plastic forging and artificial ageing

T6 solubilized, tempered and artificially aged