

Pure Aluminium is a very soft material with a lower mechanical strength. By adding suitable alloying elements, the specific characteristics of the light metal can be adapted and optimized for every imaginable application.

The requirements are ranging from highest strength, corrosion resistance and weldability to decorative appearance.

Numerical description acc. to EN 573-1	Chemical description acc. to EN 573-2	DIN		Description	Tensile strength	Usage
EN AW-6060	EN AW-Al MgSi	AlMgSi 0,5	curable	excellent formability – ideally suited for complex profiles with high dimensional accuracy; Very high Surface quality - ideally suited for all decorative surface finishing processes; high corrosion resistance; good weldable	Up to Rp0,2=150N/mm ² and Rm=215N/mm ² possible	Architecture, Door and window construction, Furniture industry, LED-Lights, Mouldings, Automotive
EN AW-6063	EN AW-Al Mg0,7Si	AlMg0,7Si	curable	Same properties as EN AW-6060 but with slightly higher strength and lower losses in the achievable surface quality.	Up to Rp0,2=200N/mm ² and Rm=245N/mm ² possible	Architecture, Door and window construction, Furniture industry, LED-Lights, Mouldings, Automotive
EN AW-6005A	EN AW-Al SiMg(A)		curable	Medium-strength alloy for structural components; Suitable for anodic oxidation (not highly decorative); Extrusion is more difficult as with EN AW-6060 / 6030; Better extrusions properties than 6082 and 6061 for complex profiles; high corrosion resistance; good weldable	Up to Rp0,2=225N/mm ² and Rm=270N/mm ² possible	Mechanical elements: Construction, Automotive, Engineering
EN AW-6082	EN AW-Al Si1MgMn		curable	Highest strength among the 6.000 alloys; Suitable for anodic oxidation (not highly decorative); Not suitable for complex profiles; high corrosion resistance; good weldable	Up to Rp0,2=260N/mm ² and Rm=310N/mm ² possible	Mechanical elements: Construction, Automotive, Engineering, Railways, Cranes, Scaffold
EN AW-6061	EN AW-Al Mg1SiCu		curable	Widely used in the US area; high strength (between 6005 and 6082); Suitable for anodic oxidation (not highly decorative); Not suitable for complex profiles; high corrosion resistance; good weldable	Up to Rp0,2=240N/mm ² and Rm=260N/mm ² possible	Mechanical elements: Construction, Automotive, Engineering, Bike frames
EN AW 3003	EN AW-Al Mn1Cu		not curable	Low mechanical strength; Higher strengths only by cold deformation possible; Excellent suitable for brazing; high corrosion resistance; good weldable	Typical values: Rp0,2=35N/mm ² Rm=95N/mm ²	Head exchanger, Cooling units, Car radiator, Electrical industry
EN AW 3103	EN AW-Al Mn1		not curable	Same properties as 3003 but without copper as alloying element	Typical values: Rp0,2=35N/mm ² Rm=95N/mm ²	Head exchanger, Cooling units, Car radiator, Electrical industry

Much more alloys available. Special alloys with limited tolerances possible. Our experts will gladly advise you on the selection of the most suitable and economical alloy for you.