

# ALUMINIUM EN-AW 6060

Aluminium alloy 6060 is a medium strength heat treatable alloy with a strength slightly lower than 6005A. It has very good corrosion resistance, very good weldability and good cold formability. It is commonly used for complex cross sections and has very good anodizing response.

Alloy	Forms	Characteristics - Properties	Applications
EN - AW 6060	• Extruded round rod/bar	<ul style="list-style-type: none"> <li>• Very good corrosion resistance</li> <li>• Medium strength</li> <li>• Complex sections</li> <li>• Anodising quality</li> </ul>	Architectural sections, frames, lightings, railing, ladders, furniture, fences, flooring

Alloy	Temper	Temper designation (EN 515)
EN - AW 6060	O	Annealed wrought alloys
	T4	Solution heat treated & natural aged
	T5	Cooled from an elevated temperature forming operation & artificially aged (precipitation hardened)
	T6	Solution heat treated & artificially aged (precipitation hardened) Press quenching required
	T64	Solution heat treated & artificially aged (precipitation hardened) Under aged to improve formability (bending temper)
	T66	Cooled from an elevated temperature forming operation & artificially aged (precipitation hardened) to a higher level of mechanical properties through special control of manufacturing processes. Press quenching required.

Aluminium & aluminium alloys  
Extruded rod/bar,  
tubes and precision profiles

EN 755-1	Technical conditions for inspection & delivery
EN 755-2	Mechanical properties
EN 755-3	Round bars, tolerances on dimension & form
EN 755-4	Square bars, tolerances on dimension & form
EN 755-5	Rectangular bars, tolerances on dimension & form
EN 755-6	Hexagonal bars, tolerances on dimension & form
EN 755-7	Seamless tubes, tolerances on dimension & form
EN 755-9	Profiles, tolerances on dimension & form
EN- 12020-1	Technical conditions for inspection & delivery (precision profiles)
EN- 12020-2	Tolerances on dimension & form (precision profiles)

Physical properties	
Alloys EN - AW	6060
Metalic range °C	585-650
Density g/cm <sup>3</sup>	2,70
Electrical conductivity MS/m	34-38
Thermal conductivity W/(m K)	200-220
Specific Heat J/(Kg K)	898
Thermal expansion values	
-50 to 20 °C (10 <sup>-6</sup> K)	21,8
20 to 100 °C (10 <sup>-6</sup> K)	23,4
20 to 200 °C (10 <sup>-6</sup> K)	24,5
20 to 300 °C (10 <sup>-6</sup> K)	25,6
YoungsModulusMpa	69500
ShearModulusMpa	26100

## Chemical composition according to EN573-3 (EN - AW %)

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Al
									Each	Total	
6060	0,30-0,60	0,10-0,30	0,10	0,10	0,35-0,60	0,05	0,15	0,10	0,05	0,15	Rest

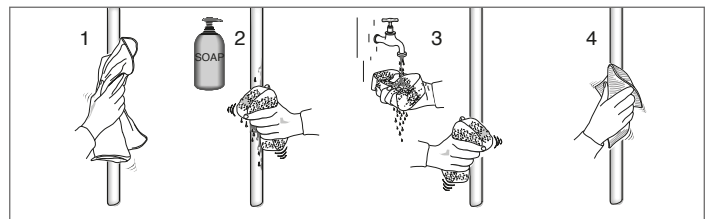
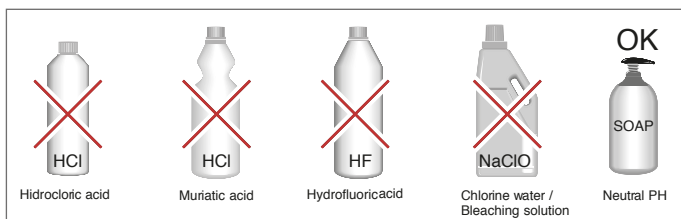
## Mechanical properties according to EN 755-2 extruded profiles

Alloy	Temper	Wall Thickness e mm*	Tensile strength Rm Mpa min	Proof stress Rpo,2 Mpa min	Elongation		Brinell Hardness HB**
					A50mm % min	A % min	
EN - AW 6060	T4	e ≤ 25	120	60	14	16	45
	T5	e ≤ 5	160	120	6	8	55
	T6	e ≤ 3	190	150	6	8	65
		3 < e ≤ 25	170	140	6	8	60
	T66	e ≤ 3	215	160	6	8	70
		3 < e ≤ 25	195	150	6	8	65

\* For different wall thick-nesses of a given profile, the lowest specified values of properties shall be considered as valid for the whole profile cross-section.

\*\* The values for the HB hardness are indicative only.

## MAINTENANCE



## MATERIALS AND FINISHING

MATERIAL	FINISH		.XX	* indicative colors
ALUMINUM	Standard:			
	ANODIZED	Silver	.69	
	SATIN	Bronze	.67	
		Black	.68	