ALUMINIUM EN-AW 6060

La alliage d'aluminium EN AW 6060 est largement utilisé en raison de sa grande capacité de déformation à chaud, sa vitesse d'extrusion élevée et sa grande propension à atteindre un excellent degré de finition esthétique, notamment par anodisation. Il présente une très bonne résistance à la corrosion, une très bonne soudabilité et une bonne formabilité à froid ce qui le rend idéal pour la réalisation de formes complexes et d'objets de design.

Alloy	Forms	Characteristics - Properties	Applications
EN - AW 6060	• Extruded round rod/bar	• Very good corrosion resistance • Medium strength • Comlex sections • Anodising quality	Architectural sections, frames, lightings, railling, ladders, furniture, fences, flooring

Alloy	Tempers	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 requierd.

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)

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

Physical properties	
Alloys EN - AW	6060
Metalic range °C	585-650
Density g/cm³	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^{-6} K)	21,8
20 to 100 °C (10^{-6} K)	23,4
20 to 200 °C (10^{-6} K)	24,5
20 to 300 °C (10^{-6} K)	25,6
YoungsModulusMpa	69500
ShearModulusMpa	26100

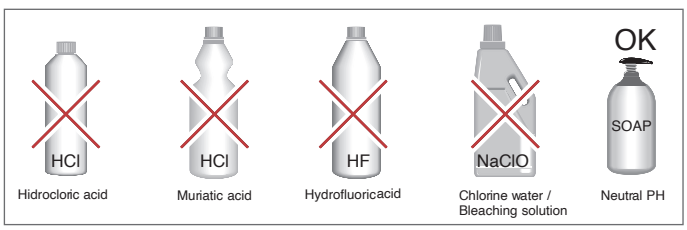
Mechanical properties according to EN 755-2 extruded profiles

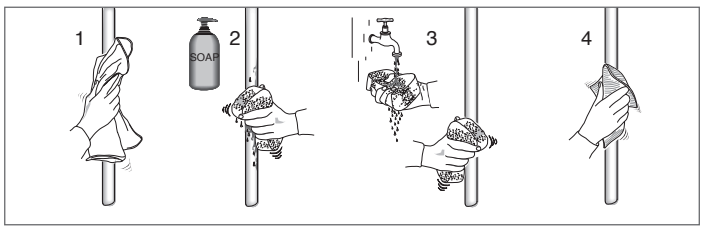
Alloy	Temper	Wall Thickness e mm*	Tensile strength Rm Mpa min	Proof stress Rpo,2 Mpa min	Elongation		Brinell Hardness HB**
					A50mm % min	A % min	
EN -AW 6060	T4	e ≤ 25	120	60	14	16	45
	T5	e ≤ 5	160	120	6	8	55
	T6	e ≤ 3	190	150	6	8	65
		3 < e ≤ 25	170	140	6	8	60
	T66	e ≤ 3	215	160	6	8	70
		3 < e ≤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

* For different wall thicknesses 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.

NETTOYAGE





MATERIAUX ET FINITIONS

MATERIEL	FINITION		.XX	* couleurs indicatives
ALUMINIUM	Standard:			
	ANODISE SATIN	Argent	**.69**	
		Bronze	**.67**	
		Noir	**.68**	
		Champagne (uniquement sur des articles sélectionnés)	**.66**	
	Standard:			
	LAQUE	Noir Ral 9005 Mat	**.40**	
		Noir Ral 9005 Poli	**.26**	
		Blanc Ral 9010	**.31**	
		Gris	**.32**	
		Champagne	**.38**	
		Bronze	**.39**	
		Architectural Bronze	**.36**	
		Medium Bronze	**.56**	
		Argent	**.41**	
		Or	**.55**	