

ALUMINIUM ALLOY DATASHEET

EN AW-6063

International alloy name: EN AW-6063
 Chemical Symbol: EN AW – AlMg0,7Si
 DIN-Werkstoff no.: 3.3208
 Alloy type: Heat treatable alloy

elviaq

MAIN USAGE

Doors and windows
 Lighting
 Food industry
 Furniture

MAIN PROPERTIES

Very good corrosion resistance
 Very good workability
 Decorative anodisation
 Heat treatable alloy (T4 temper for bending)

IMPORTANT NORMS AND LITERATURE

EXTRUSION
 EN 755-1: Technical conditions for inspection and delivery
 EN 755-2: Mechanical properties
 EN 755-3 to EN 755-9: Tolerances on dimensions and forms for different extrusions

USAGES
 EN 13195: Specifications for wrought products for marine applications
 EN 602: Usage in the food industry

CHEMICAL COMPOSITION ACCORDING TO EN 573-3 (WEIGHT %, REMAINDER AL)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OTHER ELEMENTS	
								Each	Together
0.2-0.60	max 0.35	max 0.10	max 0.10	0.45-0.90	max 0.10	max 0.10	max 0.10	max 0.05	max 0.15

TYPICAL MECHANICAL PROPERTIES EN 755 - 2

TEMPER	PROFILE WALL THICKNESS <i>t in mm *</i>	R _m <i>Mpa (min)</i>	R _{p0,2} <i>Mpa (min)</i>	A <i>% (min)</i>	A _{50MM} <i>% (min)</i>	HARDNESS** HB
T4	≤ 25	130	65	14	12	50
T5	≤ 3	175	130	8	6	65
	3 < t ≤ 25	160	110	7	5	65
T6	≤ 10	215	170	8	6	75
	10 < t ≤ 25	195	160	8	6	75
T66	≤ 10	245	200	8	6	80
	10 < t ≤ 25	225	180	8	6	80

* For different wall thicknesses within one profile, the lowest specified properties shall be considered as valid for the whole profile cross section

** Values for information purposes only

PHYSICAL PROPERTIES

DENSITY <i>kg/m³</i>	MELTING RANGE <i>°C</i>	ELECTRICAL CONDUCTIVITY <i>MS/m</i>	THERMAL CONDUCTIVITY <i>W/mK</i>	CO-EFFICIENT OF THERMAL EXPANSION <i>10⁻⁶/K</i>	MODULUS OF ELASTICITY <i>N/mm²</i>
2700	585-650	28-34	200-220	23.4	69500

PROPERTIES AND INFORMATION (RANGE FROM 1-VERY GOOD TO 6-UNSUITABLE)

CORROSION RESISTANCE		MACHINING CHARACTERISTICS		SURFACE TREATMENT		WELDABILITY			
General	1	Marine	2	T4 temper	3	Decorative anodising	2	Gas	3
				T5 and T6 temper	2	Hard/protective anodising	1	TIG	2
Hot workability Extrusion			1					MIG	2