**Al 99.50 AW 10-50****ALUMINIUM****CHEMICAL COMPOSITION :**

Si	0.25%
Fe	0.40%
Cu	0.05%
Mn	0.05%
Mg	0.05%
Cr	-
Zn	0.07%
Ti	0.05%
Others	0.03%

ALLOY DENOMINATIONS :

MATERIAL N° EN :	AW 1050A
WN/MATERIAL N° DIN :	3.0255
ROBERT LAMINAGE :	800
EN :	Al 99.50
DIN :	Al 99.50
AFNOR :	1050 A
UNS* :	A 1050

*Unified Numbering System (USA)

PHYSICAL PROPERTIES :

Density 20° C	2.71	Kg/dm ³
Melting point	640-660	°C
Modulus of elasticity, longitudinal	69	GPa
Thermal Conductivity	210-230	W/M . K
Electrical Conductivity	≥ 34	M/Ω mm ²
Electrical resistivity	≤ 0.029	Ω mm ² /M
Coefficient of linear expansion from 20 up to 300°C	23.6 x 10 ⁻⁶	K ⁻¹
IACS (International Annealed Copper Standard)	59	%

WORKABILITY AND CORROSION :

Coldworking	Very good
Hotworking	Very good
Machining	Poor
Soldering, brazing	Very good under protection
Resistance welding	Very good
Polishing	Poor
Annealing temperature	350-450°C
Stress relieving heat treatment temperature	~150°C
Corrosion in normal atmosphere	Very good
Corrosion in industrial and marine atmosphere	Very good

MAIN APPLICATIONS :

Chemical industry, pharmaceutical, food
Tools and appliances, containers, electrical devices
Scales, packing, thin sheet
Clock and watchmaking components, cogs, date disc, dial, index, hands, etc.

MAIN SPECIFICATIONS :

Low mechanical strength, high corrosion resistance
High electrical and thermal conductivity, high ductility
Good welding performances

QUALITY OF EDGES :

Slit edges

CONDITIONING :

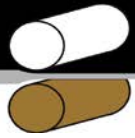
- In coils
- Cut to length, from 0.5 up to 3 m

AVAILABLE SIZES :

Widths	from 2 up to 350mm
Thickness	from 0.01 up to 2.5mm

TOLERANCES :

Depending on product



EN NORM 485-2 (AI 99.5)

TEMPER	THICKNESS		Rm (MPa) min max		Rp 0.2 min (Mpa)	ELONGATION		HBS* HARDNESS
						0.10 up to 2.5 mm A50 % min	above 2.5 mm A100 % min	
O/H111	0.2	0.5	65	95	20	20	-	20
	0.5	1.5	65	95	20	22	-	20
	1.5	3.0	65	95	20	26	-	20
H12	0.2	0.5	85	125	65	2	-	28
	0.5	1.5	85	125	65	4	-	28
	1.5	3.0	85	125	65	5	-	28
H14	0.2	0.5	105	145	85	2	-	34
	0.5	1.5	105	145	85	3	-	34
	1.5	3.0	105	145	85	4	-	34
H16	0.2	0.5	120	160	100	1	-	39
	0.5	1.5	120	160	100	2	-	39
	1.5	4.0	120	160	100	3	-	39
H18	0.2	0.5	140	-	120	1	-	42
	0.5	1.5	140	-	120	2	-	42
	1.5	3.0	140	-	120	2	-	42
H19	0.2	0.5	150	-	130	1	-	45
	0.5	1.5	150	-	130	1	-	45
	1.5	3.0	150	-	130	1	-	45
H22	0.2	0.5	85	125	55	4	-	27
	0.5	1.5	85	125	55	5	-	27
	1.5	3.0	85	125	55	6	-	27
H24	0.2	0.5	105	145	75	3	-	33
	0.5	1.5	105	145	75	4	-	33
	1.5	3.0	105	145	75	5	-	33
H26	0.2	0.5	120	160	90	2	-	38
	0.5	1.5	120	160	90	3	-	38
	1.5	4.0	120	160	90	4	-	38
H28	0.2	0.5	140	-	110	2	-	41
	0.5	1.5	140	-	110	2	-	41
	1.5	3.0	140	-	110	3	-	41

*For information only

DIN NORM 1788

TEMPER	THICKNESS μ min max		Rm (MPa) min max		Rp 0.2 min (Mpa)	ELONGATION		HARDNES S ≈	Material state
						0.10 up to 2.5 mm A50 % min	above 2.5 mm A100 % min		
W7	0.35	3.00	65	95	≤ 55	40	35	20	annealed
F9	0.35	3.00	90	130	60	9	6	30	coldworked
G9	0.35	3.00	90	130	60	13	10	30	heat treated
F11	0.35	3.00	110	150	90	6	4	35	coldworked
G11	0.35	3.00	110	150	90	9	6	35	heat treated
F13	0.35	3.00	130	170	110	4	3	40	coldworked
G13	0.35	3.00	130	170	110	6	4	40	heat treated
F15	0.35	3.00	150	-	130	3	2	45	coldworked

*For information only

AFNOR NORM NF A 50-451

TEMPER	THICKNESS e millimetres	Rm (MPa)		Rp 0.2 min (Mpa)	ELONGATION	Metallurgical State
		min	max		0.10 up to 2.5 mm A50 % min	
annealed	0.4 ≤ e ≤ 3.2	65	95	-	35	O
	3.2 < e ≤ 12	65	95	-	33	O
1/4 hard	0.4 ≤ e ≤ 6	85	120	65	9	H12
	0.4 ≤ e ≤ 6	85	120	65	13	H22
1/2 hard	0.4 ≤ e ≤ 3.2	100	140	75	6	H14
	3.2 < e ≤ 6	100	140	75	6	H14
1/2 hard	0.4 ≤ e ≤ 6	100	140	65	10	H24
3/4 hard	0.4 ≤ e ≤ 3.2	120	160	100	5	H16
	3.2 < e ≤ 20	120	165	100	5	H16
3/4 hard	0.4 ≤ e ≤ 3.2	120	160	90	7	H26
hard	0.4 ≤ e ≤ 3.2	140	-	125	4	H18 et H19