

Chemical composition

According to EN 573-3:2009(F)

Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	remarks	Others		Aluminium min
												each	total	
0.40	0.50	0.10	0.20-0.7	3.5-4.5	0.05-0.25	0.25	0.15	0.05	0.15	

Typical physical properties :

According to "mill products general properties" Pechiney

1MPa = 1N/mm²

Density g/cm ³	2.66	Poisson ratio	0.33
Melting range °C	585-642	Thermal conductivity (0 to 100°C)- W/m °C (O/H32 Temper)	126
Coefficient of linear expansion (0 to 100°C)-°C-1 x 10(6)	23.9	Resistivity at 20°C - μΩ cm (O/H32 Temper)	5.6
Modulus of elasticity MPa (average)	71 000	Specific heat (0 to 100°C) J/kg °C	945

Technological properties :

According to "mill products general properties" Pechiney

(A)-very good (B)-good (C)-acceptable (D)-poor or not recommended

Welding

Electron beam	A
Inert gaz (TIG or MIG)	A
Resistance welding :	A
Slodering	D

Deep drawing

Annealed	B
1/2 hard H116/H32	C
4/4 hard	C
Spinning 'O' Temper	C

Normal behaviour

Atmospheric corrosion	A
Marine environments	A
Machinability H116/H32	
Break-up of chip	C

Anodizing

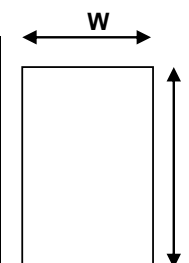
Protective	A
Bright	C
Hard	A

Tolerances :

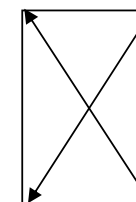
According to EN 485-3:2003(F)

Thickness		Specific Width "Hot Rolled products" - W in mm				
from >	to =	W<=1250	W >1250 <=1600	w >1600 <=2000	W >2000 <=2500	W >2500 <=3500
>= 2,5	4	± 0,28	± 0,28	± 0,32	± 0,35	± 0,40
4	5	± 0,30	± 0,30	± 0,35	± 0,40	± 0,45
5	6	± 0,32	± 0,32	± 0,40	± 0,45	± 0,50
6	8	± 0,35	± 0,40	± 0,40	± 0,50	± 0,55
8	10	± 0,45	± 0,50	± 0,50	± 0,55	± 0,60
10	15	± 0,50	± 0,60	± 0,65	± 0,65	± 0,80
15	20	± 0,60	± 0,70	± 0,75	± 0,80	± 0,90
20	30	± 0,65	± 0,75	± 0,85	± 0,90	± 1,0
30	40	± 0,75	± 0,85	± 1,0	± 1,1	± 1,2
40	50	± 0,90	± 1,0	± 1,1	± 1,2	± 1,5
50	60	± 1,1	± 1,2	± 1,4	± 1,5	± 1,7
60	80	± 1,4	± 1,5	± 1,7	± 1,9	± 2,0
80	100	± 1,7	± 1,8	± 1,9	± 2,1	± 2,2
100	150	± 2,1	± 2,2	± 2,5	± 2,6	/
150	220	± 2,5	± 2,6	± 2,9	± 3,0	/
220	350	± 2,8	± 2,9	± 3,2	± 3,3	/
350	400	± 3,5	± 3,7	± 3,9	± 4,2	/

Width and Length		Tolerances on specific Width(W) or Length(L) mm				
thickness from>	thickness to=	WL <=1000 <=3500	WL >1000 <=2000 <=3500	WL >2000 <=3000 <=3500	L >3000 <=3500 <=6000	L >3500 <=6000
...	6	0 +5'	0 +7'	0 +8'	0 +10'	0 +10'
6	12	0 +6'	0 +7'	0 +8'	0 +10'	0 +10'
12	50	0 +6'	0 +8'	0 +9'	0 +10'	0 +10'
50	200	0 +8'	0 +8'	0 +9'	0 +10'	0 +10'
200	400	0 +11'	0 +11'	0 +12'	0 +12'	0 +12'



Squareness mm		WIDTH (W)			
LENGTH (L)		L <=1000	L >1000 <=1500	L >1500 <=2000	L >2000 <=3500
from >	to =				
...	2000	6	7	8	...
2000	3000	7	7	9	10
3000	3500	7	8	10	10
3500	5000	8	10	10	12
5000	...	12	12	15	15



5086**EN AW-Al Mg4****ALMET MARINE****Mecanical properties at room temperature :**

According to EN 485-2:2008(F)

in MPA 1mpa = 1 N/m/m2

* Values offered merely as a guide

Products	temper	Thickness mm		TENSILE PROPERTIES					Bending radius		Hardness
		from >	to =	Rm-UTS min (Mpa)	Rm-UTS max (Mpa)	Rp0,2MPa-0,2%ps	A% 50mm	A%	180°	90°	HBW *
Sheet 5086	0 / H111	0.2	0.5	240	310	100	11		1.0 t	0.5t	65
		0.5	1.5	240	310	100	12		1.0 t	1.0 t	65
		1.5	3	240	310	100	13		1.0 t	1.0 t	65
		3.0	6.0	240	310	100	15		1.5 t	1.5 t	65
		6.0	12.5	240	310	100	17			2.5 t	65
		12.5	150.0	240	310	100		16			65
Sheet 5086	H112	>= 6.0	12.5	250		105	8				69
		12.5	40.0	240		105		9			65
		40.0	80.0	240		100		12			65
Sheet 5086	H12	0.2	0.5	275	335	200	3				81
		0.5	1.5	275	335	200	4				81
		1.5	3.0	275	335	200	5				81
		3.0	6.0	275	335	200	6				81
		6.0	12.5	275	335	200	7				81
		12.5	40.0	275	335	200		6			81
Sheet 5086	H14	0.2	0.5	300	360	240	2				90
		0.5	1.5	300	360	240	3				90
		1.5	3.0	300	360	240	3				90
		3.0	6.0	300	360	240	3				90
		6.0	12.5	300	360	240	4				90
		12.5	25.0	300	360	240		3			90
Sheet 5086	H16	0.2	0.5	325	385	270	1				98
		0.5	1.5	325	385	270	2				98
		1.5	3.0	325	385	270	2				98
		3.0	4.0	325	385	270	2				98
Sheet 5086	H22	0.2	0.5	275	335	185	5		2.0 t	0.5 t	80
		0.5	1.5	275	335	185	6		2.0 t	1.5 t	80
		1.5	3.0	275	335	185	7		2.0 t	2.0 t	80
		3.0	6.0	275	335	185	8			2.5 t	80
		6.0	12.5	275	335	185	10			3.5 t	80
		12.5	40.0	275	335	185		9			80
Sheet 5086	H24	0.2	0.5	300	360	220	4		2.5 t	1.0 t	88
		0.5	1.5	300	360	220	5		2.5 t	2.0 t	88
		1.5	3.0	300	360	220	6		2.5 t	2.5 t	88
		3.0	6.0	300	360	220	7			3.5 t	88
		6.0	12.5	300	360	220	8			4.5 t	88
		12.5	25.0	300	360	220		7			88
Sheet 5086	H26	0.2	0.5	325	385	250	2				96
		0.5	1.5	325	385	250	3				96
		1.5	3.0	325	385	250	3				96
		3.0	4.0	325	385	250	3				96

5086**EN AW-Al Mg4****ALMET MARINE**

Sheet 5086	H32	0.2	0.5	275	335	185	5		2.0 t	0.5 t	80
		0.5	1.5	275	335	185	6		2.0 t	1.5 t	80
		1.5	3.0	275	335	185	7		2.0 t	2.0 t	80
		3.0	6.0	275	335	185	8			2.5 t	80
		6.0	12.5	275	335	185	10			3.5 t	80
		12.5	40.0	275	335	185		9			80
Sheet 5086	H34	0.2	0.5	300	360	220	4		2.5 t	1.0 t	88
		0.5	1.5	300	360	220	5		2.5 t	2.0 t	88
		1.5	3.0	300	360	220	6		2.5 t	2.5 t	88
		3.0	6.0	300	360	220	7			3.5 t	88
		6.0	12.5	300	360	220	8			4.5 t	88
		12.5	25.0	300	360	220		7			88
Sheet 5086	H36	0.2	0.5	325	385	250	2				96
		0.5	1.5	325	385	250	3				96
		1.5	3.0	325	385	250	3				96
		3.0	4.0	325	385	250	3				96