

### 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	0,40	0,10	0,40 - 1,0	4,0 - 4,9	0,05 - 0,25	...	0,25	0,15	...	...	...	0,05	0,15	

### Typical physical properties :

According to "mill products general properties" Pechiney

1MPa = 1N/mm<sup>2</sup>

Density g/cm <sup>3</sup> .....	2,72	Poisson ratio .....	0.33
Melting range °C .....	580 - 640	Thermal conductivity (0 to 100°C)- W/m °C (O/H32 Temper) .....	120
Coefficient of linear expansion (0 to 100°C)-°C-1 x 10(6) .....	23.9	Resistivity at 20°C - μΩ cm (O/H32 Temper) .....	6.0
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 gas (TIG or MIG)	A
Resistance welding :	A
Slodering	D

#### Deep drawing

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

#### Normal behaviour

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

#### Anodizing

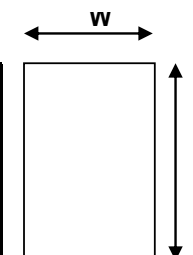
Protective	A
Bright	C
Hard	A

### Tolerances :

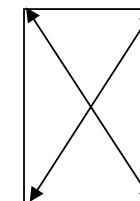
According to EN 485-3:2003(F)

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	WL >1000 <=2000	WL >2000 <=3000	L >3000 <=3500	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



**5083****EN AW-5083 - EN AW-AI Mg4,5Mn0,7****ALMET MARINE****Mechanical 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 5083	O / H111	0,2	0,5	275	350	125	11		1,0 t	0,5 t	75
		0,5	1,5	275	350	125	12		1,0 t	1,0 t	75
		1,5	3	275	350	125	13		1,5 t	1,0 t	75
		3	6,3	275	350	125	15			1,5 t	75
		6,3	12,5	270	345	115	16			2,5 t	75
		12,5	50	270	345	115		15			75
		50	80	270	345	115		14			73
		80	120	260		110		12			70
		120	200	255		105		12			69
		200	250	250		95		10			69
	250	300	245		90		9			69	
SHEET 5083	H 112	>= 6	12,5	275		125	12				75
		12,5	40	275		125		10			75
		40	80	270		115		10			73
		80	120	260		110		10			73
SHEET 5083	H 116 ** ***tests ASTM G66 ***tests ASTM G67	>= 1,5	3	305		215	8		3,0 t	2,0 t	89
		3	6	305		215	10			2,5 t	89
		6	12,5	305		215	12			4,0 t	89
		12,5	40	305		215		10			89
		40	80	285		200		10			83
SHEET 5083	H 321 ** **tests ASTM G66 **tests ASTM G67	>= 1,5	3	305		215	8		3,0 t	2,0 t	89
		3	6	305		215	10			2,5 t	89
		6	12,5	305		215	12			4,0 t	89
		12,5	40	305		215		10			89
		40	80	285		200		10			83