

# Primary Alloyed Aluminium

- We supply extrusion billets , rolling slabs and foundry ingots/Tbars accross various industries with standard alloy covering customer specification in Primary Alloyed aluminium.

## 1. Primary Alloyed Billets

The details of the alloys each product shape are shown here below;

- Alloy billets (1xxx-7xxx) range in diamaters from 4``(102 mm) up to 17``(432 mm) and lenghts are 5800 mm, 6000 mm and 7000 mm (for cut billets please consult us) with below standard chemical analysis ;

Alloy(Max)	Si %	Fe %	Cu %	Mn %	Mg %	Zn % max	Cr %	Ti %	Others Each	Others Total
6060HP	0.40-0.44	0.15-0.20	0.02	0.01-0.03	0.36 – 0.40	0.02	0.02	0.02	0.02	0.10
6060-30	0.40-0.45	0.15-0.20	0.02	0.01-0.03	0.40 – 0.45	0.02	0.02	0.02	0.02	0.10
6060-30s	0.42-0.47	0.16-0.20	0.02	0.01-0.03	0.39-0.45	0.02	0.02	0.02	0.02	0.10
6060-90	0.50-0.55	0.16-0.22	0.02	0.02-0.03	0.50-0.55	0.02	0.02	0.02	0.02	0.10
6063-35I	0.42-0.46	0.15-0.20	0.02	0.01-0.03	0.42 – 0.47	0.02	0.02	0.02	0.02	0.10
6063-35S	0.42-0.46	0.14-0.19	0.02	0.01-0.03	0.46-0.50	0.02	0.02	0.02	0.02	0.10
6005	0.58-0.63	0.18-0.22	0.10-0.2	0.13-0.17	0.53-0.58	0.02		0.02	0.02	0.10
6061	0.61-0.66	0.14-0.20	0.20-0.30	max 0.05	0.90-0.96	0.02	0.06-0.19	0.02-0.05	0.02	0.10
6082	0.95-1.05	0.15-0.23	max 0.03	0.50-0.57	0.62-0.67	0.02		0.02	0.02	0.10
6463	0.34-0.38	0.06-0.13	0.10-0.15	0.03-0.05	0.45-0.53	0.02	0.03	0.05	0.02	0.10
P1020	Max0.08	Max0.20	Max 0.01	Max 0.01	Max 0.02	0.04	Max 0.01	Max 0.01	0.02	0.10

- We also supply according to the customer specs in alloys 2xxx, 3xxx, 6xxx, 5xxx and 7xxx

property	T5	T6
Tensile strength (Mpa)	160	190
Yield strength (Mpa)	120	150

# Primary Alloyed Aluminium

- Metallurgical Quality

Average grain size : min 2000 grains/cm<sup>2</sup> - max 200 μ acc to ASTM E112-96

Inverse segregation zone : <200 μ

Inclusions : each cast need to be filtered with ceramic foam filter with a min rating of 30 ppi and max amount of inclusion.

20-50 μ	51-100 μ	Greater than 100 μ
<7	<1	0

- Physical quality

Mechanical damages must not be greater than 2 mm in depth, 5 mm in width and 250 mm in lengths on the surface of the billets

- Dimension and tolerances

Diameter +0/-2 mm up to 203 mm , +0/-3 mm above 228 mm

Length +/-10 mm

- Marking : billets in a bundle is marked on one cut end with cast number and alloy code.

# Primary Alloyed Aluminium

## 2. Rolling slabs 6082 & 5083

1xxx, 3xxx, 5xxx and 6xxx series rolling slabs and forcast plate slabs are available we supply according to the customer specifications.

dimensions of slabs		
Thickness mm	Width mm	Length mm
600	1630	3800
600	1630	3020
600	1630	4115
600	1750	3810
560	1310	4500
560	1100	4000

Production of other sizes is possible according to the order from the customer

# Primary Alloyed Aluminium

## 3. Primary foundry alloy ingots/tbars

According to the EN1706,EN AC42100

Quality certificates : ISO/TS9001, ISO/TS16949, ISO14001, ISO18000, ISO27000 etc

Open mould ingot weight : 7-15 kgs

Continuous mold ingot weight : 6-8 kgs

Continuous cast bar weight : 10 kgs

Tbars weight range : 300-750 kgs

Marking & packing : will be done acc to customers specification

alloy	Si %	Fe %	Mn %	Mg %	Cu %	Ti %	Zn %	Cr %	Sn %	V %	Ga %	Ca %	Pb %	Ni %	Sr %	P %	Sb %	AL	Others Each	Others Total
<b>AlSi10Mg</b>	9.00-11.00	1.00	0.001-0.4	0.2-0.5	0.1	0.15	0.1		0.05									balance	0.020	0.100
<b>AlSi7MgSr</b>	6.60-7.30	0.13	0.05	0.25-0.33	0.02	0.10-0.15	0.05	0.005	0.01	0.03	0.03	20ppm	0.01	0.01	0.013-0.023	15ppm	0.005	balance	0.020	0.100
<b>AlSi11MgSr</b>	10.70-11.60	0.1300	0.04	0.12-0.17	0.02	0.10-0.15	0.04	0.005	0.01	0.03	0.03	25ppm	0.01	0.01	0.0350-0.0450	15ppm	0.005	balance	0.020	0.100
<b>AlSi10MgMn</b>	9.50-11.50	0.15	0.60-0.80	0.15-0.30	0.03	0.04-0.15	0.07		0.03			0.005	0.03	0.10	0.015-0.030	0.0020	0.015	balance	0.020	0.100
<b>145-piston alloy</b>	11.00-12.00	0.20-0.30	0.15	0.8-1.40	0.80-1.5	0.08	0.02	0.05						0.80-1.30				balance	0.020	0.100
<b>175-piston alloy</b>	11.00-12.00	0.20-0.30	0.15	0.80-1.40	3.00-4.50	0.05	0.08	0.05						2.00-3.00		0.001-0.004		balance	0.020	0.100
<b>AlSi9Cu3</b>	8.00-9.50	0.70-1.00	0.40-0.65	0.15-0.40	3.00-3.50	0.15	1.00		0.10			0.0050	0.10	0.10	Max0.0010	0.0015	0.020	balance	0.020	0.100
<b>AlSi50</b>	47-53	0.30	0.05	Max0.05	0.05	0.05	0.05	0.05				0.15		0.05				balance	0.020	0.100
<b>AlSi20</b>	18-22	0.45	0.10		0.10	0.10		0.10						0.10				balance	0.020	0.100