



SPECIFICATION
FOR
ALUMINUM – ALLOY BILLET





1. SCOPE

This specification covers aluminum extrusion billets.

2. REQUIREMENTS

2.1.CHEMICAL COMPOSITION

2.1.1. Limits are in mass percent maximum unless shown as a range in conformance with ASTM B221 and Aluminum Association.

2.1.2. Analysis shall be made for the element for which limits are in this table. Conformance must be made in accordance with the rounding-off method of "Practice E29".

Table1

CHEMICAL COMOSITION LIMITS												
AA ¹ DESIGNATION	Si	Fe	Cu	Mn	Mg	Cr	Zn	B	V	Ti	Others each	Others total
6063	0.20-0.60	0.35	0.10	0.10	0.45-0.90	0.10	0.10	-	-	0.10	0.05	0.15
6061	0.40-0.80	0.70	0.15-0.40	0.15	0.8-1.2	0.04-0.35	0.25	-	-	0.15	0.05	0.15
6101	0.30-0.70	0.50	0.10	0.03	0.35-0.80	0.03	0.10	0.06	-	-	0.03	0.10
6201	0.50-0.90	0.50	0.10	0.03	0.60-0.91	0.03	0.10	0.06	-	-	0.03	0.10
1050	0.25	0.40	0.05	0.05	0.05	-	0.05	-	0.05	0.03	0.03	-
1350	0.10	0.40	0.05	0.01	-	0.01	0.05	0.05	Ti+V=0.02		0.03	0.10

2.1.3. Other compositions are available upon request.

2.2.TYPICAL PHISICAL PROPERTIES

Alloy	Temper	Density Kg/m ³	Modulus of elasticity GPa	Coefficient of thermal expansion 1/°C	Thermal conductivity W/(m.k)	Electrical conductivity %IACS	Approximate melting range °C
6063	T5	2700	69	23.5*10 ⁻⁶	201	52	615-650
6061	T6	2700	69	23.6*10 ⁻⁶	167	-	580-650
6101							
6201							
1050							
1350							

2.4.AVALABLE DIMENSIONS

2.4.1. Diameters

- ✓ 152 mm (6 inch) , 178 mm (7 inch) , 203 mm (8 inch)

2.4.2. Length limits

- ✓ 6400 mm max.

2.5.TOLERANCES

- ✓ DIAMETER : +/-0.5 mm
- ✓ Length: +/- 3 mm up thru 800 mm of length and over 800 mm +/- 10 mm.



- ✓ **Straightness:** Allowed deviation from straight: 6 mm in total length or 1 mm in any 1000 mm.

3. PACKAGING

3.4. Billets in horizontal position are stacked on wooden runners and it can also be stacked in a vertical position. For the packaging of this material was taken into account the normal rules for safety during transportation and handling., level of protection "A".(ASTM B660-Standard Practice for Packaging).



3.5.METHOD OF PACKAGING

Diameter (in)	Diameter (mm)	Weight of Billet (Kg)	Length of Billet (mm)	Number of Billet
6	152	48.99	610	24
7	178	67.19	610	19
8	203	87.39	610	10