

IBOCO Aluminum Rail Material Information:

Omega 3FAL1

Omega 32A1

Omega 32A2

Omega 345A2

AA6063

Aluminum-Magnesium-Silicon Alloy

Products: Extrusion

Chemical Composition:

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	other total	Alu
Min-Max	0.2-0.6	0.35	0.1	0.1	0.45-0.9	0.1	0.1	0.15	remainder

Typical physical properties:

Density		2.71 g/cm ³
Modulus of elasticity		7.0 kg/mm ² x10 ⁴
Melting range		600-650 °C
Poisson ratio	(0~100°C)	0.21 cal/g.°C
Coefficient of linear expansion	(20~100°C)	23.4x10 ⁻⁶ /°C
Thermal conductivity	(25°C) O temper	0.48 cal/cm.s.°C
Resistivity	(20°C) O temper	0.033 Ωmm ² /m

Technological Properties:

Corrosion Resistance	Excellent
Anodizing	Excellent
Formability	Very good
Machinability	Very good
Weldability	Very good
Brazeability	Good

Mechanical properties: (T5)

Tensile Strength	kg/mm ²	19.0
Elongation	δ ₅₀ t 1.6mm	12.0
Hardness	kg/mm ²	60.0
Shear Strength	kg/mm ²	12.0
Fatigue Endurance	kg/mm ²	7.0

Available temper:

O, T5