



JHIHGUAN METAL & MATERIAL CO., LTD.
JHIHGUAN INTERNATIONAL TRADING CO. LTD.

志冠金屬材料有限公司

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Date: 2012-03-02

PRODUCT DATA SHEET

Master Alloy:	Grain Refiner for Aluminium foundry
Specification:	AlTi5B1
Factory:	YiWu Sunrise Metal Materials Co., Ltd., in Zhejiang, China

Description: AlTi5B1 Coil / Ingot / Stick

Item: AlTi5B1

Our products of AlTi5B1 Rod/Coil, made of premium Aluminum, can meet the following requirements.

Chemical Composition:

Composition	Ti	B	Fe	Si	v	Other minor element
Content: %	4.5-5.5	0.8-1.2	<0.2	<0.35	<0.35	0.03

Physical Specification:

During the production, every material examined by current detector to avoid pin-hole or any crevice.

Size & Weight of Coil	180kg±10kg
I.D.(mm)	Φ360±25
O.D.(mm)	Φ710
Height (mm)	280±25
Weight (kg)	180±20

AlTi5B1 Ingot: 250g±20g/ pc

Specification of Metallography:

AlTi5B1 with pin-hole, or aluminium polymer of Ti, Si, Cr will be treated as waste.

Requirement of Phase	Maximum	Average (>90%)
Phase of TiB ₂ (TiB ₂)	5μ	2μ
Phase of TiAl ₃ (TiAl ₃)	200μ	150μ
Cross-section of Foil Type Al ₂ O ₃ (Al ₂ O ₃)	200μ	100μ

Total Oxide Length of the Cross-section (1000μ/cm²)

Grain Refiner:

AlTi5B1 coil should meet the maximum requirement as following,

Grain in average (μ)	Specified amount	Maximum	Time
AlTi5B1	250 μ	400 μ	2min
AlTi3B1	300 μ	450 μ	2min

Rod Diameter: 9.5mm, Weight approx. 192g per meter,
Weight of 1 kg 5%Ti 1%B is equal to 0.005% Titanium additive.

Application:	Grain Refiners of aluminium or aluminium alloy, to minimize dross formation and solubility of hydrogen.
Usage:	0.08 - 0.30% Before refining/degassing process, put required quantity of AlTiB Rod into the melt of aluminium. The quantity of AlTiB Coil is added directly in the launder by a feedcoil machine. The feeding speed is calculated based on the flow rate of melted-aluminium.
Process:	
Storage :	Place in a dry and well ventilated area.
Validity	5 years