



# **ALuminum Rare Earth alloy AIRE10, AIRE15**

## 1. Properties Features:

Contains rare earth elements like La, Ce, Pr and Nd. The RE content of AIRE10 is  $9 \sim 11\%$ . It can purify the molten aluminum, improve the fluidity and the microstructure of Al-Si alloy, and improve the mechanic, electronic and working properties of the aluminum cast. Used in electricity industry, RE can notably reduce the harms caused by the residual siliceous impurity.

#### 2. Application:

Apply to the modification treatment of Al-Si alloys which casting requires longer time or the RE element additive of aluminum alloys in the smelting.

## 3. Operation Technology Suggestion:

(1). Temperature: 720~760°C

(2). Dosage: When amounting to 0.03~0.15% of the weight of the molten aluminum, the RE elements will have varied degrees of modifying and purifying effects on different alloys. The economic dosage should be decided by experimental results. Suggested dosage is 0.3~1.5% of the weight of the molten aluminum to be treated for the first

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time.

- (3). Valid period for modifying: 4~8 hours.
- (4). Operation method: Put AIRE10 nuggets into the molten Al, stir the melt and keep the melt static for 10~20minutes, strip off the dross and cast the testing rod. If the rod fracture shows normal, the molten aluminum is ready for casting.
- (5). Fracture inspection: Size of testing rod:  $\phi$ 12×100. The rod fracture should normally look like silvery-white plush and present fine and evenly distributed crystalline grains but no bright silicon spots.

## 4. Package and Storage:

Appearance: white metal nuggets.

250g/pc, 25kg/carton.

Storage: Keep dry and ventilated.