



Aluminum Hardeners

Aluminum's mechanical and physical properties are enhanced with the use of alloying elements. These alloying elements are commonly referred to as hardeners. Aluminum based master alloys which contain the hardener elements in high concentrations, provide a convenient and economical way to add them to aluminum to achieve desired properties. These master alloys readily go into solution at lower liquid aluminum temperatures, thus minimizing dross formation and solubility of hydrogen. Lower furnace temperatures also mean reduced energy consumption and longer furnace life.

Aluminum Bismuth

Alloy		Composition Limits Maximum unless shown as a range				Aluminum Association Color Coding	Form
3% Bi	H2003	Bi 2.7-3.3	Si 0.2	Others Each 0.03		 	Waffle Ingot
			Fe 0.2	Total --		1 Purple / 1 Black	
8% Bi	H2016	Bi 7.5-8.5	Si 0.20	Others Each 0.05		 	Waffle Ingot
			Fe 0.30	Total 0.2		1 Purple / 1 Black	
10% Bi		Bi 9-11	Si 0.20	Others Each 0.05		 	Waffle Ingot
			Fe 0.30	Total 0.2		1 Purple / 1 Black	