




Aluminum Boron Alloys

The electrical and thermal conductivity of aluminum can be improved by the addition of trace amounts of boron to eliminate the undesirable effects of chromium, titanium, vanadium, and zirconium. Aluminum boron master alloys provide a convenient mechanism for making the desired boron addition. Boron has also been acknowledged as an effective grain refiner for silicon aluminum alloys.

Aluminum Boron

Alloy		Composition Limits Maximum unless shown as a range						Aluminum Association Color Coding	Form
4%B	H2204	B	3.5-4.5	Si	0.2	Others Each	0.03	 1 yellow / 1 red	Waffle Ingot
				Fe	0.3	Total	0.1		
				Na	0.5				
				K	1				
5%B	H2217	B	4.5-5.5	Si	0.2	Others Each	0.03	 1 yellow / 1 red	Waffle Ingot Rod
				Fe	0.3	Total	0.1		
				Ti	0.05				
				Na	0.5				
8% B	H2222	B	7.5-9.0	Si	0.25	Others Each	0.03	 1 yellow / 1 red	Waffle Ingot
				Fe	0.3	Total	0.1		
				Ti	0.05				
				Na	0.5				
10%B	H2221	B	9-11	Si	0.2	Others Each	0.03	 1 yellow / 1 red	Waffle Ingot
				Fe	0.3	Total	0.1		
				Ti	0.05				
				Na	0.5				
				K	1				