

# AIBz9Fe (ERCuAl-A2)

## Material Designation \*

AWS	ERCuAl-A2
EN	CuAl10Fe (Cu 6180)
JIS	/
GB	SCu6180

## Chemical Composition

Cu	Balance	%
Al	8.5-11.0	%
Fe	0.5-1.5	%



## Characteristics

It is a kind of aluminum bronze welding wire containing iron, which has high corrosion resistance and wear resistance. It has excellent mechanical properties and welding performance, good fluidity of molten metal, beautiful weld formation and high welding strength.

## Typical Applications

It is used for shipbuilding and machinery manufacturing and it is also used to weld aluminum bronze, manganese silicon bronze, some other copper based alloys, iron-based alloys and dissimilar metals (such as aluminum bronze and steel, copper and steel).

## Physical Properties

Density <sup>①</sup>	7.53	g/cm <sup>3</sup>
Melting point	1040	°C
Thermal conductivity <sup>①</sup>	55	W/m·K
Coefficient of thermal expansion <sup>②</sup>	16.2	10 <sup>-6</sup> /K
Electrical conductivity <sup>①</sup>	13	%IACS

Note<sup>①</sup>: Temperature for testing is 20°C.

Note<sup>②</sup>: Temperature range for testing is 20-300°C.

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## Delivery Form

	Packing	Size(ODxDxHeight)	Weight/Length	Diameter
			kg/mm	mm
Spool	D200 (Plastic spool)	Φ200 × Φ52 × 55	5.0	0.8 ≤ Φ ≤ 1.6
	D300 (Plastic spool)	Φ300 × Φ52 × 100	12.5	0.8 ≤ Φ ≤ 1.6
	BS300 (Galvanized steel spool)	Φ300 × Φ52 × 100	12.5	0.8 ≤ Φ ≤ 1.6
Barrel	100kg (Barrel carton)	Φ500 × Φ305 × 500	100	0.8 ≤ Φ ≤ 1.2
	200kg (Barrel carton)	Φ500 × Φ300 × 750	200	0.8 ≤ Φ ≤ 1.2
	200kg (Barrel carton)	Φ660 × Φ440 × 700	200	Φ = 1.6
Straight bar	Crate	--	250-3000mm	1.6 ≤ Φ ≤ 7.0
Coil wire	Kraft/crate	--	10-200	0.8 ≤ Φ ≤ 7.0

\*Composition           AWS  
Other Physical Properties   AWS

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