Technical Data Sheet
AMPCO-TRODE® 10

Description and Application

AMPCO-TRODE® 10 aluminum bronze is the most versatile welding electrode in this family of alloys. It is intended for deposition with electric arc welding processes.

AMPCO-TRODE® 10 will weld and join many ferrous and nonferrous metals and combinations of dissimilar metals. These metals include the more weldable grades of cast iron, high and low carbon steels, copper, bronzes and copper-nickel alloys. Applications for AMPCO-TRODE® 10 include: building up bearing surfaces, joining and fabricating copper alloys, overlaying for resistance to corrosion and erosion and general maintenance and repair welding.

AMPCO-TRODE® 10 Coated

Limiting Chemical Composition,

% (deposited weld metal)

Copper*	Balance
Aluminum	6.50-9.0
Iron	0.50-5.0
Silicon	1.5 max.
Others	0.50 max.

* including silver

Mechanical Properties

(Nominal all-weld metal values)

Tensile Strength, ksi	77 (531 MPa)
Yield Strength, ksi	35 (241 MPa)
Elongation, % in 2" (51 mm)	27
Reduction of Area, %	27
BHN (3000 kg.)	
1/4" (6.4 mm) deposit	119

Specifications

AWS A5.6 Class E CuAl-A2
ASME SFA 5.6 Class E CuAl-A2

***Hardness will vary depending on quality of the weld and experience and knowhow of the welder*

Typical Applications

Cast iron	Malleable iron
Cast iron to steel	Cast iron to bronze
Steel to bronze	Aluminum bronze
Silicon bronze	Manganese bronze
Cupro-nickel	Tool steel
Copper to steel	Bearings
Bushings	Pump housings
Condenser boxes	Hydraulic pistons
Brake drums	Tractor gear housings
Idler pulleys	Pickling hooks
Paper mill rolls	Motor bases
Tin plate mill rolls	Impellers
Valve seats	Gears
Mixer arms	Press rams
Ship propellers	Lance heads

AMPCO-TRODE® 10 Bare

Limiting Chemical Composition,

% (filler metal)

Copper*	Balance
Aluminum	8.50-11.0
Iron	0.50-1.50
Silicon	0.10 max.
Others	0.50 max.

* including silver

Mechanical Properties

(Nominal all-weld metal values)

Tensile Strength, ksi	79 (545 MPa)
Yield Strength, ksi	35 (241 MPa)
Elongation, % in 2" (51 mm)	28
Reduction of Area, %	28
BHN (3000 kg.)	
1/4" (6.4 mm) deposit	140

Specifications

AWS A5.7 Class ER CuAl-A2
ASME SFA 5.7 Class ER CuAl-A2
ABS Approved