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Manganese Nickel Aluminum Bronze

◆ INTRODUCTION

Aufhauser Manganese Nickel Aluminum Bronze filler metal is especially suited for welding ship propellers where resistance to corrosion, erosion and cavitations is required. Good toughness and hardness.

◆ APPLICATIONS

- MIG and TIG welding or surfacing of cast or wrought base metals of similar composition.
- Joining or surfacing copper alloys of unalloyed and low alloy steel as well as gray cast iron subject to corrosion.

◆ CHEMICAL COMPOSITION

Copper	Zinc	Manganese	Iron	Silicon	Nickel	Aluminum	Lead	Others
Remainder	0.15	11.0-14.0	2.0-4.0	0.10	1.5-3.0	7.0-8.5	0.02	0.50

Note: Copper contains Silver; Nickel includes Cobalt. All values are maximum percentage, unless shown in range.

◆ PHYSICAL and MECHANICAL PROPERTIES

Tensile Strength:	110,000 psi, max.
Yield Strength:	67,000 psi, max.
Elongation, in 2 in.:	27%
Brinell Hardness:	160-200



◆ SPECIFICATIONS MEET or EXCEED

- AWS A5.7 Class ERCuMnNiAl
- ASME SFA5.7, ERCuMnNiAl
- MIL-E-23765/3

◆ STANDARD SIZES AND DIAMETERS

Size	Cast (12" spool)	Helix (12" spool)
3/32 or 1/8 x 36" rod	N/A	N/A
.035" dia. X 30 lb. spl	15-40"	< 1"
.045" dia. X 30 lb. spl	15-40"	< 1"
.062" dia x 30 lb. Spl	15-40"	< 1"

Copper and its alloys require a relatively high heat input with shortened welding time. Higher preheat temperatures and faster welding rates than for steel are necessary.

C633: Manganese Nickel Aluminum Bronze

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