



Alloy 67 Welding Wire and Rod

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
www.weldingwire.com

Quality Management System
in accordance with
ISO 9001
Cert # 05-R0925



ALLOY DESCRIPTION AND APPLICATION;

Washington Alloy 67 is a copper-nickel filler metal used for MIG, TIG, oxyacetylene and submerged arc welding of wrought or cast 70/30, 80/20 and 90/10 copper-nickel to themselves or to each other. Excellent for joining copper-nickel alloys to nickel-copper Alloy 400, R-405, K-500 or high nickel alloy 200. Washington Alloy 67 can be used for overlaying on steel, however a barrier layer of Washington Alloy 61 should be used for the first pass when MIG welding. Washington Alloy 60 should be used for the first pass when submerged arc welding.

TYPICAL GMAW WELDING PROCEDURES; DCEP Spray transfer

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Argon (cfh)
0.023	460-580	60-120	21-22	20-25
0.030	450-525	130-160	21-24	20-30
0.035	385-455	155-190	23-25	25-30
0.045	275-310	210-235	26-28	30-35
1/16	150-240	250-310	27-31	35-40

TYPICAL GTAW WELDING PROCEDURES; DCEN with EWTh-2 truncated conical tip

Filler Wire Size	Tungsten	Amps	Volts	Gas Cup Size	Argon (cfh)	Base thickness
1/16"	1/16"	80-170	12	3/8-1/2"	20	1/16-1/8"
3/32"	3/32"	140-275	12	3/8-1/2"	20	1/8- 3/16"
1/8"	1/8"	200-375	12	1/2"	25	1/4-3/8"
1/8-5/32"	3/16"	260-475	12	1/2-3/4"	30	3/8-1/2"

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

CHEMICAL COMPOSITION REQUIREMENT (%) AND PHYSICAL PROPERTIES;

Copper	Remainder	Melting Temp	Approx. 2140° F (1171C)
Nickel	29.0-32.0	Tensile Strength (psi)	50,000
Manganese	1.0	Elongation	30 %
Titanium	0.20-0.50	Brinell Hardness	60-80
Iron	0.40-0.75		
Silicon	0.25		
Lead	0.02	Phosphorus	0.02

All single values on composition are maximum percentages & Total others elements 0.50

AVAILABLE SIZES: TN 67 = Spools of .035, .045, 1/16"
TN 67/ = Cut lengths of .035, .045, 1/16, 3/32, 1/8, 5/32,
Other sizes available – please inquire

SPECIFICATIONS; ANSI/AWS A5.7 ERcNi
ASME SFA 5.7 ERcNi

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