Alloy C-276
Wire & Rod

WA. ALLOY CO.

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

American Welding Society
Sustaining Company Member

GAWDA
GASES AND WELDING DISTRIBUTORS ASSOCIATION

Washington Alloy C276 is a nickel-chromium-molybdenum filler metal developed for MIG and TIG welding of Hastelloy® C and Hastelloy® C-276 to themselves, to stainless steel or to other nickel base alloys. Washington Alloy C276 offers excellent resistance to pitting, stress-corrosion cracking and oxidizing atmospheres up to 1900ºF.

Applications This filler metal is frequently used for welding the clad side of joints on steel in the chemical, petrochemical and petroleum industries. Washington Alloy C276 offers excellent resistance to a wide range of chemicals including the corrosive effects of wet chlorine gas, hypochlorite and chlorine dioxide solutions. Other uses would include hot contaminated mineral acids, solvents, and solutions (organic and inorganic) contaminated by chlorine or chlorides, dry chlorine acetic or ferric acids, seawater and brine solutions.

TYPICAL GMAW WELDING PROCEDURES; DCEP Spray Arc

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stick-out	Argon(cfh)
0.030	550-750	175-250	26-32	3/8-1/2”	30-40
0.035	425-575	175-300	26-32	3/8-1/2”	30-40
0.045	250-350	200-310	26-32	3/8-1/2”	35-50
0.062	125-200	250-330	27-33	1/2"-5/8”	35-50

TYPICAL GMAW WELDING PROCEDURES; DCEP Short Circuit

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stick-out	75Ar/25He (cfh)
0.035	150-200	90-110	19-21	3/8-1/2”	35-45
0.045	175-225	100-140	22-24	3/8-1/2”	40-50

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”	80-150	12	1/2”	20	1/16-1/8”
3/32”	3/32”	150-250	12	3/4”	25	1/8- 3/16”
1/8”	1/8”	200-375	12	5/8”	30	1/4-1/2”

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

TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

	AWS Spec.		AWS Spec.
Carbon	0.02 max	Tensile Strength (psi)	100,000 (typical)
Manganese	1.00 max	Elongation in 2”	25 % (typical)
Iron	4.0 -7.0	Cobalt	2.5 max
Phosphorus	0.04 max	Chromium	14.5-16.5
Sulfur	0.03 max.	Molybdenum	15.0- 17.0
Silicon	0.08 max.	Vanadium	0.35 max
Copper	0.50 max.	Tungsten	3.0- 4.5
Nickel	Remainder		

AVAILABLE SIZES: TN C276= Spools of .035”, .045”, 1/16”,
TN C276= Cut lengths of .030, .035, .045, 1/16, 5/64, 3/32, 1/8, 5/32
Other sizes available – please inquire

SPECIFICATIONS; **AWS** A5.14/A5.14M ERNiCrMo-4
ASME SFA 5.14 ERNiCrMo-4