



WA. ALLOY CO.

WASHINGTON ALLOY'S Quality Management System is Certified to ISO 9001:2008 Cert # 05-R0925

Alloy C-276 Flux-Cored Wire

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



American Welding Society
Sustaining Company Member



ALLOY DESCRIPTION AND APPLICATION:

Alloy C276 FC is a nickel-chromium-molybdenum filler metal developed for 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 1900°F. 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, solutions (organic and inorganic) contaminated by chlorine or chlorides, dry chlorine acetic or ferric acids, seawater and brine solutions.

TYPICAL FCAW WELDING PROCEDURES; DCEP

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	Ar & CO ₂ (cfh)
0.035	290-650	130-260	22-32	1/2-5/8"	30-50
0.045	275-400	125-240	25-32	1/2-3/4"	30-50
1/16"	180-285	155-320	26-31	1/2-3/4"	30-50

Procedures may vary with change in position, base metals, filler metals, equipment and other changes. Keep heat input and interpass to a minimum. Heat Treatable alloys may require pre & post heat.

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

	AWS Spec.		AWS Spec.
Carbon	0.02 max	Tensile Strength (psi)	100,000 min.
Manganese	1.00 max	Elongation in 2"	25 % min.
Silicon	0.20 max	Molybdenum	15.0-17.0
Nickel	Balance	Nb (Cb) + Ta	3.15-4.15
Phosphorus	0.03 max.	Copper	0.20 max
Sulfur	0.03max	Cobalt	2.50 max
Chromium	14.50-16.50	Iron	4.0-7.0
Vanadium	0.35 max	Tungsten	2.5-3.5

AVAILABLE SIZES: TNF C276= Spools of .035, .045

Other sizes available – please inquire

SPECIFICATIONS; AWS A5.34/A5.34M ENiCrMo4T0-1/4 & TNi 6276-01/4 (flat and horizontal)

AWS A5.34/A5.34M ENiCrMo4T1-1/4 & TNi 6276-11/4 (all position)

1/4 = 1is for 100% CO₂ & 4 is for 75-80% Ar with balance CO₂

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