



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

# 6027 Carbon Steel Coated Electrode

U.S. ALLOY CO.  
dba Washington Alloy  
7010-G Reames Rd.  
Charlotte, NC 28216  
[www.weldingwire.com](http://www.weldingwire.com)



## ALLOY DESCRIPTION AND APPLICATION;

**E6027 is a heavy iron powder, iron oxide coated electrode developed to provide maximum deposition efficiency and deep penetration at higher speeds. It is particularly suited for welding flat, deep groove joints as well as horizontal butt and fillet welds. E6027 weld deposits exhibit exceptional ductility, high impact strength and easy slag removal. This electrode provides easy operation and excellent restarting capability making it suitable for intermittent welding. E6027 may be used with AC or DC (straight or reverse polarity).E6027 electrodes are used for the welding of ship hulls, bridges, structural steels, railroad cars, earth moving equipment and pressure vessels or pipes that have been positioned for horizontal welding.**

## TYPICAL WELDING PROCEDURES; DCEP, DCEN or AC

Diameter	Amps (Flat)	Volts
1/8"	90-190	23-27
5/32"	120-240	25-31
3/16"	170-330	21-26

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

## TYPICAL WELD METAL CHEMISTRY (%) & PROPERTIES

	AWS Spec.	Weld Metal		AWS Spec.	Weld Metal
Carbon	0.20 max	0.06	Chromium	0.20 max	0.02
Manganese	1.20 max	0.85	Molybdenum	0.30 max	0.01
Silicon	1.00 max	0.36	Vanadium	0.08 max	0.004
Phosphorus	N/S	0.012	Elongation in 2"(%)	22% min	31.5
Sulphur	N/S	0.009	Yield Strength (ksi)	48 min	71
Nickel	0.30 max	0.005	Tensile Strength (ksi)	60 min	63
Mn + Ni + Cr + Mo + V	N/S		Charpy V-notch at -20°F	15 ft·lbs min.	51

**AVAILABLE SIZES: TE 6027 = 1/8", 5/32", 3/16"**

**SPECIFICATIONS; ANSI/AWS A5.1 E6027  
ASME SFA 5.1 E6027**

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