



# 70C-6M Carbon Steel Metal-Cored Wire

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

Quality Management System  
in accordance with  
**ISO 9001:2000**  
Cert # 05-R0925



## ALLOY DESCRIPTION AND APPLICATION:

70C-6M is a metal cored wire designed for single or multi pass welding on mild steels having a smooth stable arc transfer, spatter free, excellent bead contour, with a high deposition rate and nearly free of slag weld bead. This wire is formulated to weld flat and horizontal which has deoxidizers that helps where mill scale may be present. This metal cored wire may be used on many fabrications and is also found often in robotic applications.

## TYPICAL METAL CORED WELDING PROCEDURES; DCEP OPTIMUM IN BOLD (FLAT)

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	Ar/CO <sub>2</sub> (cfh)
0.035	350- <b>525</b> -700	180- <b>200</b> -315	29- <b>30</b> -35	3/8-3/4"	35-40
0.045	220- <b>400</b> -600	165- <b>250</b> -345	27- <b>30</b> -33	1/2-1"	35-45
0.052	220- <b>375</b> -625	220- <b>300</b> -460	25- <b>30</b> -35	1/2-1"	40-50
1/16"	150- <b>330</b> -490	230- <b>365</b> -500	26- <b>31</b> -38	1/2-1.25"	40-50

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

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

	U.S. ALLOY 70C-6M	BASED ON 80% Argon 20% CO <sub>2</sub>		
			AWS Spec	Typical
Carbon	0.04			
Manganese	1.55	Tensile Strength (psi)	70,000 min.	89,000
Silicon	0.54	Yield Strength (psi)	58,000 min.	77,000
Phosphorus	0.014	Elongation in 2"	22 % min.	27%
Sulfur	0.011	Charpy V-notch at -20°F	20 ft-lbs min.	29 ft-lbs

**AVAILABLE SIZES:** TCF 70C-6M= Spools and Drums of .035, .045, .052, 1/16,  
Other sizes may be available – please inquire

**SPECIFICATIONS; ANSI/AWS A5.18 E70C-6M**  
**ASME SFA A5.18 E70C-6M**

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