



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

# CRCARB-O

## Cored Hard-facing Wire

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:

**CRCARB-O** is designed to deposit an alloy composed of a high density of primary chromium carbides in a semi-austenitic iron matrix. It is considered the most economical of hard-facing alloys in high wear applications. Deposit has high abrasion resistance with moderate impact resistance. Can be applied in multiple layers depending on application. Weld deposit will stress relieve itself by crack checking. Can be used in applications up to 1,100 F. Wire is designed for self-shielded welding but additional 100% CO<sub>2</sub> gas shield may be used. 2-layer max recommended

Grinding rolls, augers, drill stems, mining bucket and teeth over-laying wear plate, clad pipe, dredge pump components, rock crushing hammers, ditcher teeth, plow, cultivator points

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

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout
0.035	275- <b>520</b> -780	70- <b>100</b> -160	19- <b>20</b> -24	3/8-3/4"
0.045	200- <b>370</b> -600	100- <b>150</b> -205	21- <b>25</b> -30	1"- 1 3/4 "
0.052	160- <b>340</b> -500	120- <b>175</b> -390	22- <b>27</b> -30	1"
1/16"	150- <b>320</b> -390	140- <b>230</b> -375	24- <b>28</b> -31	1" -2"
5/64"	120- <b>250</b> -300	250- <b>385</b> -450	26- <b>29</b> -32	3/4-1 1/4"
3/32"	110- <b>185</b> -275	300- <b>425</b> -550	25- <b>29</b> -34	3/4-1 1/4"

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

Carbon	1.25-3.75	Chromium	8.5-11.25
Manganese	1.75 max	Boron	1.75 max
Silicon	0.5-3.5	Molybdenum	0.25-1.20
Zirconium	0.5-3.5	Iron	Balance
Hardness (two layers)	HRC 62-64	Temperature rating	1000°F
Impact strength	Moderate	Abrasion Resistance	Excellent
Cross Check Deposit	Yes	Machinability	No

### AVAILABLE SIZES:

THF CRCRB-O = Spools of .035, .045 1/16"

Other sizes available – please inquire (800HT in the past)

### SPECIFICATIONS: INTERNAL

#### EAST COAST

7010-G Reames Rd  
Charlotte, NC 28216  
Tel (888) 522-8296  
Fax (704)598-6673

#### GULF COAST

4855 Alpine Drive #100  
Stafford, TX 77477  
Tel (877) 711-9274  
Fax (281)313-6332

#### WEST COAST

8535 Utica Ave  
Rancho Cucamonga, CA 91730  
Tel (800)830-9033  
Fax (909)291-4586



**WA ALLOY CO.**

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