



# 4340 Chrome-Moly Welding Wire and Rod



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



**American Welding Society**  
Sustaining Company Member



## ALLOY DESCRIPTION AND APPLICATION;

4340 is a Chromium-molybdenum low alloy wire that will produce a dense, heat-treatable deposit. This alloy is used to weld AISI/SAE 4340 and 4330 and other heat-treatable alloys or base metals needing flame hardening. Preheat and inter-pass recommended and may also need followed by post heat treating.

### TYPICAL GMAW WELDING PROCEDURES; DCEP Short Circuit <sup>(1)</sup> 98Ar/2% O<sub>2</sub>

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Travel speed (ipm)	(cfh) 75/25
0.023	80-350	30-85	14-19	10-15	20-25
0.030	110-340	40-130	15-20	12-24	20-25
0.035	100-520	60-235	16-25	11-40	20-30
0.045	70-270	90-290	18-23	12-22	25-35
<i>Spray 0.035</i>	<i>320-600</i>	<i>160-300</i>	<i>23-26</i>	<i>11-22</i>	<sup>(1)</sup> <i>25-35</i>
<i>0.045</i>	<i>170-550</i>	<i>170-375</i>	<i>23-29</i>	<i>12-21</i>	<sup>(1)</sup> <i>25-35</i>
<i>1/16"</i>	<i>175-350</i>	<i>275-475</i>	<i>25-31</i>	<i>9-19</i>	<sup>(1)</sup> <i>25-35</i>

### 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"	100-160	12	3/8"	20	1/16-3/32"
1/16-3/32"	3/32"	120-250	12	3/8"	20	1/8- 3/16"
1/8"	1/8"	150-300	12	1/2"	25	1/4-1/2"

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

### TYPICAL WELD CHEMISTRY (%)& WELD METAL PROPERTIES; 100%Ar (GTAW)

Carbon	0.35	PWHT: completely annealed		
Manganese	0.85	welded post weld re-heat treated		
Silicon	0.50	oil quenched at 1600°F then		
Phosphorus	0.011	Tempered at	1150° F	950° F
Sulfur	0.014	Tensile Strength (psi)	200,000	289,000
Chromium	0.78	Yield Strength (psi)	168,000	250,000
Nickel	1.80			
Molybdenum	0.25			

**AVAILABLE SIZES:** TU 4340 = Spools and rods of

Vacuum melted, Flux cored and Metal core alloys also available

**SPECIFICATIONS;** AISI/SAE 4340



Washington Alloy Company believes that all information and data given is correct. Use this information to assist in making your own evaluations or decisions and this information should not be mistaken as an expressed or implied warranty. U.S. ALLOY CO. assumes no liability for results or damages incurred from the use of any information contained herein, in whole or in part.