



American Welding Society
DISTRIBUTOR COMPANY MEMBER

Ficha Técnica ER 308L

ALLOY DESCRIPTION AND APPLICATION;

308L is a austenitic stainless steel used to weld base metal of similar composition types such as AISI 201(17-4 Mn), 202(18-5 Mn), 205, 301(17-7), 302(18-8), 304(19-9), 305(18-10), 308(20-10) also the low carbon grades. The low carbon reduces carbide precipitation (Tri-mix gas = 90%He+7.5%Ar+2.5%CO₂)

TYPICAL GMAW WELDING PROCEDURES; DCEP Short Circuit

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stick-out	Tri-mix (cfh)
0.023	180-400	30-85	14-19	3/8-1/2"	20-25
0.030	150-350	45-125	15-20	3/8-1/2"	20-25
0.035	120-330	60-150	16-22	3/8-1/2"	20-30
0.045	100-280	90-210	17-22	3/8-1/2"	25-30
<i>Spray 0.030</i>	<i>280-600</i>	<i>160-220</i>	<i>24-28</i>	<i>3/8-1/2"</i>	<i>(1) 25-35</i>
<i>0.035</i>	<i>250-470</i>	<i>170-295</i>	<i>23-29</i>	<i>1/2-3/4"</i>	<i>(1) 25-35</i>
<i>0.045</i>	<i>200-385</i>	<i>195-360</i>	<i>24-30</i>	<i>1/2-3/4"</i>	<i>(1) 30-35</i>
<i>1/16"</i>	<i>110-200</i>	<i>210-380</i>	<i>25-31</i>	<i>1/2-3/4"</i>	<i>(1) 35-40</i>

(1) 98%Ar
2%O₂

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"	80-150	12	3/8"	20	1/16-1/8"
3/32"	3/32"	150-250	12	3/8"	20	1/8- 3/16"
1/8"	1/8"	200-375	12	1/2"	25	1/4-1/2"

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

TYPICAL WIRE CHEMISTRY (%) & WELD METAL PROPERTIES

Carbon	0.01	Tensile Strength (psi)	86,500
Manganese	1.77	Yield Strength (psi)	59,000
Silicon	0.37	Elongation	35 %
Molybdenum	0.03		
Nickel	9.64	Phosphorus	0.021
Chromium	19.75	Sulfur	0.003
Copper	0.04	Nitrogen	0.019

AVAILABLE SIZES: TS 308L = Spools of 023, 030, 035, 045, 1/16, 5/64, 3/32, 1/8, 3/16

TT 308L = Cut lengths of 023, 030, 035, 045, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16

Other sizes available – please inquire

SPECIFICATIONS; ANSI/AWS A5.9 ER308L

ASME SFA 5.9 ER308L