

ALUMINUM

MIG WIRES / TIG RODS (GMAW/GTAW)

ALMIGWELD 5554

Alloy 5554 was developed as a filler Alloy, primarily for Alloy 5454 that is widely used in the Manufacture of chemical storage tanks, and in Particular, those that may be subjected to Temperatures in Excess of 150° F. This combination of Alloys does not become sensitive To stress corrosion cracking (Scc) at elevated temperatures.

Specifications	
Classifications	AWS A5.10
Approvals	CWB

Approvals are based on factory location. Please contact ESAB for more information.

Alloy Type	Aluminum
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Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
5454-O			
Base Alloy	117 MPa (17 ksi)	248 MPa (36 ksi)	22 %
Base Alloy 5454-O			
As Welded	110 MPa (16 ksi)	241 MPa (35 ksi)	17 %

Typical Wire Composition %							
Mn	Si	Cr	Cu	Ti	Zn	Fe	Mg
0.7	0.1	0.1	0.01	0.15	0.01	0.1	2.7

Recommended Welding Parameters		
Current	Wire Diameter	Voltage
60-170 A	0.8 mm (0.030 in.)	13-24 V
100-130 A	0.8 mm (0.030 in.)	18-22 V
125-150 A	0.8 mm (0.030 in.)	20-24 V
85-120 A	0.9 mm (0.035 in.)	20-23 V
170-190 A	0.9 mm (0.035 in.)	21-26 V
125-150 A	0.9 mm (0.035 in.)	20-24 V
140-260 A	1.2 mm (0.047 in.)	20-29 V
125-150 A	1.2 mm (0.047 in.)	20-24 V
180-210 A	1.2 mm (0.047 in.)	22-26 V
170-240 A	1.2 mm (0.047 in.)	24-28 V
140-300 A	1.2 mm (0.047 in.)	20-29 V
190-350 A	1.6 mm (1/16 in.)	25-30 V
240-300 A	1.6 mm (1/16 in.)	22-27 V
190-260 A	1.6 mm (1/16 in.)	21-26 V
290-340 A	1.6 mm (1/16 in.)	26-30 V
260-310 A	1.6 mm (1/16 in.)	22-27 V
280-320 A	1.6 mm (1/16 in.)	24-28 V
280-400 A	2.4 mm (3/32 in.)	26-31 V
280-360 A	2.4 mm (3/32 in.)	26-30 V
300-400 A	2.4 mm (3/32 in.)	26-32 V