

ALMIGWELD 5556

Alloy 5556 was first utilized in 1956. It develops the highest as-welded strengths in fillet welds and it is nearly double that of 4043. The 5Xxx Series Of Alloys offer an Excellent Combination of Corrosion Resistance, Strength, Toughness, Workability, and Weldability. As a result, they are used in a wide variey of Applications. A Characteristic of this series of Alloys, However, is their susceptibility to stress corrosion cracking when the weld pool chemistry is greater than 3% Mg and there is exposure to prolonged temperatures in excess of 150° F. Special Alloys and Tempers are often required to overcome this problem. Contact Alcotec for assistance in Alloy/Temper selection.

Specifications			
Classifications	ANSI/AWS A5.10 : (ER & R)		
Approvals	ABS		
	ClassNK		
	CWB		
	DNV		
	KR		
	LR		

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

Alloy Туре	Aluminum

Typical Tensile Properties				
Condition	Yield Strength	Tensile Strength	Elongation	
Base Alloy 5456-H112				
As Welded	159 MPa (23 ksi)	310 MPa (45 ksi)	14 %	
5456-H112				
Base Alloy	165 MPa (24 ksi)	317 MPa (46 ksi)	22 %	

Typical Wire Composition %							
Mn	Si	Cr	Cu	Ті	Zn	Fe	Mg
0.7	0.05	0.10	0.01	0.080	0.005	0.12	5.2

Recommended Welding Parameters			
Current	Wire Diameter	Voltage	
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	
125-150 A	0.9 mm (0.035 in.)	20-24 V	
170-190 A	0.9 mm (0.035 in.)	21-26 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	
300-400 A	2.4 mm (3/32 in.)	26-32 V	
280-360 A	2.4 mm (3/32 in.)	26-30 V	