

**Table 7**  
**Aluminum Welding Filler Metal Selection Guide**

Base Metal		5052	5083 5456	5086	514.0 520.0 535.0	5454	6061 6063 6151 6351	356.0 A356.0
Base Metal	Filler Metal	Characteristics <sup>a</sup>						
		WSDCT <sup>b</sup>	WSDCT	WSDCT	WSDCT	WSDCT	WSDCT	
356.0 A356.0	4043 5356	ABAAA BABB-	ABBA- AAAA-	ABBA- AAAA-	ABBA- AAAB-	ABBAA AAAB-	AAAAA -----	AAAAA -----
6061 6063 6151 6351	4043 5183 5356 5554 5556 5654	ADCAA BABC- BBAC- CCABA BABC- CCAB-	ADCA- AABA- AABA- BCAA- AABA- BCAA-	ADCA- AABA- AABA- BCAA- AABA- BCAA-	ADCA- BABC- BBAC- CCAB- BABC- CCAB-	ADCBA BABC- BBAC- CCAAA BABC- CCAB-	ACBAA BAAC- BBAC- CBABB BAAC- CBAB-	
5454	4043 5183 5356 5554 5556 5654	ADCCA AABB- ABAB- CCAAA AABB- BCAB-	----- AABB- ABAB- BCAA- AABB- -----	----- AABB- ABAB- BCAA- AABB- -----	----- AABB- ABAB- BCAA- AABB- BCAA-	----- AABB- ABAB- BCAAA AABB- BCAB-		
514.0 520.0 535.0	4043 5183 5356 5554 5556 5654	ADCC- AABB- ABAB- CCAA- AABB- BCAA-	----- AABA- ABAA- BCAA- AABA- BCAA-	----- AABA- ABAA- BCAA- AABA- BCAA-	----- AABB- ABAB- BCAA- AABB- BCAA-			
5086	5183 5356 5554 5556 5654	AABA- ABAA- CCAA- AABA- BCAA-	AABA- ABAA- ----- AABA- -----	AABA- ABAA- ----- AABA- -----				
5083 5456	5183 5356 5554 5556 5654	AABA- ABAA- CCAA- AABA- BCAA-	AABA- A-AA- ----- AABA- -----					
5052	4043 5183 5356 5554 5556 5654	ADCB A AABC- ABAC- CCAAA AABC- BCAB-						

a. A, B, C, and D are relative ratings in decreasing order of merit. The ratings have relative meaning only within a given block. Combinations having no rating are not usually recommended. Ratings do not apply when the alloys are to be heat-treated after welding.

b. Legend: Filler metals are rated on the following characteristics:

Symbol	Characteristic
W	Ease of welding (relative freedom from weld cracking).
S	Strength of welded joint in as-welded condition. Rating applies particularly to fillet welds. All rods and electrodes rated should develop presently specified minimum strengths for butt welds.
D	Ductility. Rating is based upon free bend elongation of the weld.
C	Corrosion resistance in continuous or alternate immersion in fresh or salt water.
T	Recommended for service at sustained temperatures above 150°F (66°C).