

Aluminum Filler Alloy Chart

Base Alloy	Filler	1060, 1070 1080, 1350	1100	2014 2036	2219	3003 ALCLAD3003	3004
Characteristics		S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M
319.0, 333.0 354.0, 355.0 C355.0, 380.0	2319			B A A A A A	B A A A A A		
	4043	B A A A A A	B A A A A A	C C B C A A	C C B C A A	B B A A A A	B B A A A A
	4145	A A B A A A	A A B A A A	A B C B A A	A B C B A A	A A B A A A	A A B A A A
413.0, 443.0 444.0, 356.0 A356.0, 359.0 A357.0	4043	A A A A A A	A A A A A A	B B A A A A	B B A A A A	A A A A A A	A A A A A A
	4145	A A B B A	A A B B A	A A B A A	A A B A A	A A B B A	
7005, 7021 7039, 7046 7146, 710.0 711.0	4043	A A C A A	A A C A A	B B A A A	B B A A A	A B C A A	A D C B A
	4145			A A B A A	A A B A A		
	5183	B A B A A	B A B A A			B A B A A	B A B A A
	5356	B A A A A	B A A A A			B A A A A	B B A A A
	5554						C C A A A A
	5556	B A B A A	B A B A A			B A B A A	B A B A A
	5654						C C A A B
6061 6070	4043	A A C A A	A A C A A	B B A A A	B B A A A	A B C A A	A D C A A
	4145	A A D B A	A A D B A	A A B A A	A A B A A	A A D B A	B C D B A
	5183	B A B A A	B A B A A			B A B A A	B A B A A
	5356	B A A A A	B A A A A			B A A A A	B B A A A
	5556	B A B A A	B A B A A			B A B A A	B A B A A
6005, 6063 6101, 6151 6201, 6351 6951	4043	A A C A A	A A C A A	B B A A A	B B A A A	A B C A A	A D C A A
	4145	A A D B A	A A D B A	A A B A A	A A B A A	A A D B A	B C D B A
	5183	B A B A A	B A B A A			B A B A A	B A B A A
	5356	B A A A A	B A A A A			B A A A A	B B A A A
	5556	B A B A A	B A B A A			B A B A A	B A B A A
5454	4043	A B C C A	A B C C A			A B C C A	A D C C A
	5183	B A B B A	B A B B A			B A B B A	B A B B A
	5356	B A A B A	B A A B A			B A A B A	B B A B A
	5554	C A A A A	C A A A A			C A A A A	C C A A A
	5556	B A B B A	B A B B A			B A B B A	B A B B A
511.0, 512.0 513.0, 514.0 5154, 5254 535.0	4043	A B C C	A B C C			A B C C	A D C C
	5183	B A B B A	B A B B A			B A B B A	B A B B A
	5356	B A A B A	B A A B A			B A A B A	B B A B A
	5554	C A A A A	C A A A A			C A A A A	C C A A A
	5556	B A B B A	B A B B A			B A B B A	B A B B A
	5654	C A A A B	C A A A B			C A A A B	C C A A B

Base Alloy	Filler	ALCLAD 3004	5005 5050	5052 5652	5083 5456	5086 5056	511.0, 512.0 513.0, 514.0 5154, 5254 535.0
Characteristics		S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M
319.0, 333.0 354.0, 355.0 C355.0, 380.0	4043	B B A A A A	B B A A A A	A A A A A A	A A A A A	A A A A A	A A A A A
	4145	A A B A A A	A A B A A A				
413.0, 443.0 444.0, 356.0 A356.0, 359.0 A357.0	4043	A A A A A A	A A A A A A	A B A A A A	A B B A A	A B B A A	A B B A A
	5356			B A B B A	A A A A A	A A A A A	A A A A B A
7005, 7021 7039, 7046 7146, 710.0 711.0	4043	A D C B A	A B C B A	B D C B A			
	5183	B A B A A	B A B A A	A A B A A	A A A B A	A A A B A	A A A B A A
	5356	B B A A A	B A A A A	A B A A A	A A B A A	A A B A A	A A B A A A
	5554	C C A A A A	C A A A A A	B C A A A A			B C A A A
	5556	B A B A A	A B A B A	A A A B A	A A A B A	A A A B A	A A A B A A
	5654	C C A A B	C A A A A	A B C A A A			B C A A A
6061 6070	4043	A D C A A	A B C A A	A D C A A	A D C A	A D C A	A D C A
	4145	B C D B A	A B D B A				
	5183	B A B A	A B A B	A B A B C	B A A B A	A A A B A	A B A B C B
	5356	B B A A	A B A A	A B B A C	A A B A A	A A B A A	A B B A C A
	5554			C C A B A B	B C A A A	A B C A A	A C C A B B
	5556	B A B A	A B A B	A B A B C	B A A B A	A A A B A	A B A B C B
6005, 6063 6101, 6151 6201, 6351 6951	4043	A D C A A	A B C A A	A D C A A	A B C A	A B C A	A B C A
	4145	B C D B A	A B D B A				
	5183	B A B A	A B A B	A B A B C	B A A B A	A A A B A	A B A B C A
	5356	B B A A	A B A A	A B B A C	A A A A A	A A A A A	A B A A C A
	5554			C C A B A B	B A A A A	A B A A A	A C A A B A
	5556	B A B A	A B A B	A B A B C	B A A B A	A A A B A	A B A B C A
5454	4043	A D C C A	A B C C A	A D C C A			
	5183	B A B B A	B A B B A	A A A B A	A A A B B	A A A B B	A A A B B A
	5356	B B A B A	B A A B A	A B A B A	A A B A B	A A B A B	A A B A B A
	5554	C C A A A A	C A A A A A	C C A A A A	B C A A A	A B C A A	A B C A A A
	5556	B A B B A	B A B B A	A A A B B	A A A B B	A A A B B	A A A B B A
	5654			B C A B B			B C A A B
511.0, 512.0 513.0, 514.0 5154, 5254 535.0	4043	A D C C	A B C C	A D C C			
	5183	B A B B A	B A B B A	A A A B B	B A A B A	A A A B A	A A A B B B
	5356	B B A B A	B A A B A	A A B A B	A A B A A	A A B A A	A A B A B A
	5554	C C A A A	C A A A A	A C C A A	B B C A A	A B C A A	A B C A A B
	5556	B A B B A	B A B B A	A A A B B	B A A B A	A A A B A	A A A B B A
	5654	C C A A B	C A A A A	B B C A A	A B C A A	B B C A A	B B C A A A

Base Alloy	Filler	5454	6005, 6063 6101, 6151 6201, 6351 6951	6061 6070	7005, 7021 7039, 7046 710. 0, 711. 0 7146	413. 0, 443. 0 444. 0, 356. 0 A356. 0, A357. 0 359. 0	319. 0, 333. 0 354. 0, 355. 0 C355. 0, 380. 0
Characteristics		S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M
319. 0, 333. 0 354. 0, 355. 0 C355. 0, 380. 0	2319 4043 4145		A A A A A A	B B A A A A	B B A A A A	B B A A A A	B A A A A A
		A A A A A A	B B A A A A	A A B A A A	A A B A A A	A A B A A A	A B B B A A
413. 0, 443. 0 444. 0, 356. 0 A356. 0, 359. 0 A357. 0	4043 4145 A356. 0 A357. 0 5356	A B B A A A A A A B A	A B A A A A A A B B A	A B A A A A A A B B A	A B B A A A A A B B A	A B A A A A A A B B A B A A A A A A A A A A A A	
7005, 7021 7039, 7046 7146, 710. 0 711. 0	4043 5183 5356 5554 5556 5654	A A B A A A A B A A A A B C A A A A A A B A A A B C A A A A	A A A B A A A A B A A A B C A A A A A A A B A A A B C A A A	A A B A A A A A B A A A B C A A A A A A A B A A A B C A A A	A A A B A A A A B A A A B C A A A A A A A B A A A B C A A A		
6061 6070	4043 4643(1) 5183 5356 5554 5556 5654	A D C B A A B A B C A A B B A C A A C C A A A A B A B C A A C C A B B	A C B A A A A C B A A A A B A A C A A B A A C A A B A A C B C B A B B	A C B A A A A C B A A A A B A A C B A B B A C A A B A A C B B C B A B B			
6005, 6063 6101, 6151 6201, 6351 6951	4043 4643(1) 5183 5356 5554 5556 5654	A B C B A A B A B C A A B A A C A A C A A A A A B A B C A A C A A B B	A C B A A A A C B A A A A B A A C A A B A A C A C B A B B A A B A A C A C B A B B				
5454	5183 5356 5554 5556 5654	A A B B A A B A B A B C A A A A A A B B A B C A B B					

Base Alloy	Filler	1060, 1070 1080, 1350	1100	2014 2036	2219	3003 ALCLAD3003	3004
Characteristics		S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M
5086 5056	4043	A B C B	A B C B			A B C B	A C C B
	5183	A A B A A	A A B A A			A A B A A	A A B A A
	5356	A A A A A	A A A A A			A A A A A	A A B A A
	5556	A A B A A	A A B A A			A A B A A	A A B A A
5083 5456	4043	A B C B	A B C B			A B C B	A C C B
	5183	A A B A A	A A B A A			A A B A A	A A B A A
	5356	A A A A A	A A A A A			A A A A A	A A B A A
	5556	A A B A A	A A B A A			A A B A A	A A B A A
5052 5652	4043	A B C A A	A B C A A			A B C A A	A B C A A
	5183	B A B A	B A B A			B A B A	B A B A
	5356	B A A A	B A A A			B A A A	B A A A
	5556	B A B A	B A B A			B A B A	B A B A
5005 5050	1100	C B A A A A	C B A A A A			C C A A A A	
	4043	A A C A A A	A A C A A A			A B C A A A	A B C A A
	4145	B A D B A A	B A D B A A			B B D B A A	
	5183	C A B A B	C A B A B			C A B C B	B A B A
	5356	C A B A B	C A B A B			C A B C B	B A A A
	5556	C A B A B	C A B A B			C A B C B	B A B A
ALCLAD 3004	1100	D B A A A A	D B A A A A			C C A A A A	
	4043	A A C A A A	A A C A A A			A B C A A A	A D D A A
	4145	B A D B A A	B A D B A A			B B D B A A	
	5183	C A B C B	C A B C B			C A B C A	B A C C A
	5356	C A B C B	C A B C B			C A B C A	B B B C A
	5554						C C A B A A
3004	5556	C A B C B	C A B C B			C A B C A	B A C C A
	1100	D B A A A A	D B A A A A			C C A A A A	
	4043	A A C A A A	A A C A A A			A B C A A A	A B D A A
	4145	B A D B A A	B A D B A A			B B D B A A	
	5183	C A B A B	C A B A B			C B C A	B A C C A
	5356	C A B A B	C A B A B			C A B C A	B B B C A
3003 ALCLAD 3003	5554						C C A B A A
	5556	C A B C B	C A B C B			C B C A	B A C C A
	1100	B B A A A A	B B A A A A			B B A A A A	
	4043	A A B A A A	A A B A A A	B A A A A A	B A A A A A	A A B A A A	
	4145	A A C B A A	A A C B A A	A A B A A A	A A B A A A	A A C B A A	
2219	2319			B A A A A A	A A A A A A		
	4043	B A A A A A	B A A A A A	B C B C A	B C B C A		
	4145	A A B A A A	A A B A A A	A B C B A	A B C B A		
2014 2036	2319			C A A A A A			
	4043	B A A A A A	B A A A A A	B C B C A			
	4145	A A B A A A	A A B A A A	A B C B A			
1100	1100	B B A A A A	B B A A A A				
	4043	A A B A A A	A A B A A A				
1060, 1070 1080, 1350	1100	B B A A A B					
	1188	C C A A A A					
	4043	A A B A A A					

Base Alloy	Filler	ALCLAD 3004	5005 5050	5052 5652	5083 5456	5086 5056
Characteristics		S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M	S Z D C T M
5086 5056	4043	A C C B	A B C B			
	5183	A A B A A	A A B A A	A A B A A	A A B A A	A A B A A
	5356	A B A A A	A A A A A	A B A A A	A B A A A	A B A A A
	5554			C C A A A		
	5556	A A B A A	A A B A A	A A B A A	A A B A A	A A B A A
	5654			B C A A B		
5083 5456	4043	A C C B	A B C B			
	5183	A A B A A	A A B A A	A A B A A	A A B A A	
	5356	A B A A A	A A A A A	A B A A A	A A A A A	
	5554			C C A A A		
	5556	A A B A A	A A B A A	A A B A A	A A B A A	
	5654			B C A A B		
5052 5652	4043	A C C A A	A B C A A	A D C B A		
	5183	B A B A	B A B A	A A B C B		
	5356	B B A A	A B A A A	A B A C A		
	5554			C C A A A B		
	5556	B A B A	A B A B A	A A B C B		
	5654			B C A B A		
5005 5050 ALCLAD 3004	1100		B A A A A			
	4043	A B C A A	A B D A A			
	5183	B A B B A	B A C B			
	5356	B A A B A	B A B B			
	5556	B A B B A	B A C B			
	4043	A D D A A				
	5183	B A C C A				
	5356	B B B C A				
	5554	C C A B A A				
	5556	B A C C A				

Note: Yellow means base alloy; Blue means welding wire; Gray means characteristic.

Note:

S: Ease of welding

Z: Strength of welding joint

D: Ductility

C: Corrosion resistance

T: Service at sustained temperatures above 150(°F)≈65.5(°C).

M: Color match after anodizing.

Characteristics—A: best; B: good; C: normal; D: poor; (blank means can't choose).