

Table A2 (Continued)

Base Metal	5154	5254 ⁽ⁱ⁾	5086	5083	5052	5055	3004	2014	1100	1060
1060, 1070, 1080, 1350	ER5356 ^(c,d)	ER5356 ^(c,d)	ER5356 ^(d)	ER5356 ^(d)	ER4043 ^(b,d)	ER1100 ^(b,e)	ER4043 ^(b,d)	ER4145 ^(b,c)	ER1100 ^(b,e)	ER1188 ^(b,c,h,i)
1100, 3003, Alc 3003	ER5356 ^(c,d)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(d)	ER4043 ^(b,d)	ER1100 ^(b,e)	ER4043 ^(b,d)	ER4145 ^(b,c)	ER1100 ^(b,e)	
2014, 2036	—	—	—	—	—	ER4145	ER4145	ER4145 ^(e)	ER4145 ^(e)	
2219	ER4043	—	—	—	ER4043 ^(a,b)	ER4043 ^(a,b)	ER4043 ^(a,b)	ER2319 ^(a)		
3004, Alc 3004	ER5356 ^(f)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(c,f)	ER5356 ^(c,f)	ER5356 ^(c,f)			
5005, 5050	ER5356 ^(f)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(c,d)	ER5356 ^(c,f)				
5052, 5652 ⁽ⁱ⁾	ER5356 ^(f)	ER5356 ^(d)	ER5356 ^(d)	ER5356 ^(d)	ER5654 ^(c,f,i)					
5083	ER5356 ^(d)	ER5356 ^(d)	ER5183 ^(d)							
5086	ER5356 ^(d)	ER5356 ^(d)								
5154, 5254 ⁽ⁱ⁾	ER5356 ^(f,i)									

General Notes:

1. Service conditions such as immersion in fresh or salt water, exposure to specific chemicals, or a sustained high temperature (over 150°F [66°C]) may limit the choice of filler metals, Filler metals ER5183, ER5356, ER5556 are not recommended for sustained elevated temperature service.
2. Recommendations in this table apply to gas shielded arc welding processes. For oxyfuel gas welding, only ER1188, ER1100, ER4043, ER4047, and ER4145 filler metals are ordinarily used.
3. Where no filler metal is listed, the base metal combination is not recommended for welding.

Notes:

- a. ER4145 may be used for some applications.
- b. ER4047 may be used for some applications.
- c. ER4043 may be used for some applications.
- d. ER5183, ER5356, or ER5556 may be used.
- e. ER2319 may be used for some applications. It can supply high strength when the weldment is postweld solution heat treated and aged.
- f. ER5183, ER5356, ER5554, ER5556, and ER5654 may be used. In some cases, they provide: (1) improved color match after anodizing treatment, (2) highest weld ductility, and (3) higher weld strength. ER5554 is suitable for sustained elevated temperature service.
- g. ER4643 will provide higher strength in 1/2 in. [12 mm] and thicker groove welds in 6XXX base alloys when postweld solution heat treated and aged.
- h. Filler metal with the same analysis as the base metal is sometimes used. The following wrought filler metals possess the same chemical composition limits as cast filler alloys: ER4009 and R4009 as R-C355.0; ER4010 and R4010 as R-A356.0; and R4011 as R-A357.0.
- i. Base metal alloys 5254 and 5652 are used for hydrogen peroxide service. ER5654 filler metal is used for welding both alloys for service temperatures below 150°F [66°C].
- j. ER1100 may be used for some applications.