



Selection of an alloy for a particular application requires consideration not only of mechanical properties, but also of numerous other characteristics, such as behavior in the casting process or subsequent treatments in the course of manufacture, and response to the environmental conditions of service.

The following table includes several significant characteristics which deserve consideration in the selection of an alloy. The characteristics are comparatively rated from 1 to 5 in decreasing order of performance.

Alloy	Product	Fluidity	Resistance to Hot Cracking	Pressure Tightness	Normally Heat Treated	Strength at Elevated Temperatures	Corrosion Resistance	Machinability	Polishing	Anodizing Appearance	Weldability
201.0	S	3	4	3	Yes	1	4	1	1	2	4
204.0	S&P	3	4	3	Yes	1	4	1	2	3	4
208.0	S	2	2	2	Optional	3	4	3	3	3	2
222.0	S&P	3	3	3	Yes	1	4	1	2	3	3
242.0	S&P	3	4	4	Yes	1	4	2	2	3	4
295.0	S	3	4	4	Yes	3	4	2	2	2	3
296.0	P	3	4	3	Yes	2	4	3	2	3	3
308.0	P	2	2	2	No	3	3	3	3	4	2
319.0	S&P	2	2	2	Optional	3	3	3	4	4	2
328.0	S	1	1	2	Optional	2	3	3	3	4	1
332.0	P	1	2	2	Yes	1	3	4	4	4	2
333.0	P	1	2	2	Optional	2	3	3	3	4	3
336.0	P	1	2	2	Yes	1	3	4	4	4	3
354.0	P	1	1	1	Yes	2	3	4	4	4	3
355.0	S&P	1	1	1	Yes	2	3	3	3	4	1
C355.0	S&P	1	1	1	Yes	2	3	3	3	4	1
356.0	S&P	1	1	1	Yes	3	2	3	4	4	1
A356.0	S&P	1	1	1	Yes	3	2	3	4	4	1
357.0	S&P	1	1	1	Yes	3	2	3	4	4	1
A357.0	S&P	1	1	1	Yes	2	2	3	4	4	1
359.0	S&P	1	2	2	Yes	2	2	4	4	4	1
443.0	S&P	1	1	1	No	4	3	5	4	4	1
B443.0	S&P	1	1	1	No	4	2	5	4	4	1
A444.0	P	1	1	1	Optional	4	2	5	4	4	1
512.0	S	3	3	4	No	3	1	2	2	2	3
513.0	P	4	4	4	No	3	1	1	1	1	3
514.0	S	4	4	5	No	3	1	1	1	1	3
520.0	S	4	4	5	Yes	5	1	1	1	1	4
535.0	S	5	4	5	Optional	3	1	1	1	1	4
705.0	S&P	4	4	4	No	4	2	1	2	2	4
707.0	S&P	4	4	4	No	4	2	1	2	2	4
710.0	S	4	5	4	No	4	4	1	2	2	4
711.0	P	4	5	4	Yes	5	2	1	1	1	4
712.0	S	3	5	4	No	4	3	1	2	2	4
713.0	S&P	3	4	4	No	4	3	1	1	1	4
771.0	S	3	4	4	Yes	4	3	1	1	1	4
850.0	S&P	4	5	5	Yes	5	4	1	3	*	5
851.0	S&P	4	5	5	Yes	5	4	1	3	*	5
852.0	S&P	4	5	5	Yes	5	4	1	3	*	5

*Information not available.