

Foundry Alloy Composition Limits

Beck Aluminum Corporation

Alloy:	SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	Other	Other
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Each:	Total:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
A201.1			4.00%	0.20%	0.20%					0.15%		
	0.05%	0.07%	5.00%	0.40%	0.35%					0.35%	0.03%	0.10%
203.2			4.80%	0.20%			1.30%			0.15%		
	0.20%	0.35%	5.20%	0.30%	0.10%		1.70%	0.10%		0.25%	0.05%	0.20%
A206.2			4.20%	0.20%	0.20%					0.15%		
	0.05%	0.07%	5.00%	0.50%	0.50%		0.03%	0.05%	0.05%	0.25%	0.05%	0.15%
242.2			3.50%		1.30%		1.70%					
	0.60%	0.60%	4.50%	0.10%	1.80%		2.30%	0.10%		0.20%	0.05%	0.15%
319.0			5.50%		3.00%							
	6.50%	1.00%	4.00%	0.50%	0.10%		0.35%	1.00%		0.25%		0.50%
319.1			5.50%		3.00%							
	6.50%	0.80%	4.00%	0.50%	0.10%		0.35%	0.90%		0.25%		0.50%
319.2			5.50%		3.00%							
	6.50%	0.60%	4.00%	0.10%	0.10%		0.10%	0.10%		0.20%		0.20%
332.0			8.50%		2.00%		0.50%					
	10.50%	1.20%	4.00%	0.50%	1.50%		0.50%	1.00%		0.25%		0.50%
332.1			8.50%		2.00%		0.60%					
	10.50%	0.90%	4.00%	0.50%	1.50%		0.50%	1.00%		0.25%		0.50%
332.2			8.50%		2.00%		0.90%					
	10.00%	0.60%	4.00%	0.10%	1.30%		0.10%	0.10%		0.20%		0.30%
339.1			11.00%		1.50%		0.60%					
	13.00%	0.90%	3.00%	0.50%	1.50%		1.50%	1.00%		0.25%		0.50%

Alloy:	SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	Other Each:	Other Total:
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
354.1	8.60%		1.60%		0.45%							
	9.40%	0.15%	2.00%	0.10%	0.60%			0.10%		0.20%	0.05%	0.15%
A355.2	4.50%		1.00%		0.50%					0.04%		
	5.50%	0.06%	1.50%	0.03%	0.60%			0.03%		0.20%	0.03%	0.10%
355.1	4.50%		1.00%		0.45%							
	5.50%	0.50%	1.50%	0.50%	0.60%	0.25%		0.35%		0.25%	0.05%	0.15%
C355.2	4.50%		1.00%		0.50%							
	5.50%	0.13%	1.50%	0.05%	0.60%			0.05%		0.20%	0.05%	0.15%
355.2	4.50%		1.00%		0.50%							
	5.50%	0.25%	1.50%	0.05%	0.60%			0.05%		0.20%	0.05%	0.15%
356.1	6.50%		0.25%									
	7.50%	0.50%	0.25%	0.35%	0.45%			0.35%		0.25%	0.05%	0.15%
356.2	6.50%		0.30%									
	7.50%	0.25%	0.10%	0.05%	0.45%			0.20%		0.20%	0.05%	0.15%
A356.1	6.50%		0.30%									
	7.50%	0.15%	0.20%	0.10%	0.45%			0.10%		0.20%		
A356.2	6.50%		0.30%									
	7.50%	0.12%	0.10%	0.05%	0.45%			0.05%		0.20%	0.05%	0.15%
B356.2	6.50%		0.30%							0.04%		
	7.50%	0.06%	0.03%	0.03%	0.45%			0.03%		0.20%	0.03%	0.10%
C356.2	6.50%		0.30%							0.04%		
	7.50%	0.04%	0.03%	0.03%	0.45%			0.03%		0.20%	0.03%	0.10%
F356.2	6.50%		0.17%							0.04%		
	7.50%	0.12%	0.10%	0.05%	0.25%			0.05%		0.20%	0.05%	0.15%

Alloy:	SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	Other Each:	Other Total:
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
357.1	6.50%				0.45%							
	7.50%	0.12%	0.05%	0.03%	0.60%			0.05%		0.20%	0.05%	0.15%
A357.2*	6.50%				0.45%						0.04%	
	7.50%	0.12%	0.10%	0.05%	0.70%			0.05%		0.20%	0.03%	0.10%
B357.2	6.50%				0.45%						0.04%	
	7.50%	0.06%	0.03%	0.03%	0.60%			0.03%		0.20%	0.03%	0.10%
C357.2*	6.50%				0.50%						0.04%	
	7.50%	0.06%	0.03%	0.03%	0.70%			0.03%		0.20%	0.03%	0.10%
359.2	8.50%				0.55%							
	9.50%	0.12%	0.10%	0.10%	0.70%			0.10%		0.20%	0.05%	0.15%
360.2	9.00%				0.45%							
	10.00%	1.10%	0.10%	0.10%	0.60%		0.10%	0.10%	0.10%			0.20%
A360.1	9.00%				0.45%							
	10.00%	1.00%	0.60%	0.35%	0.60%		0.50%	0.40%	0.15%			0.25%
380	7.50%				0.70%							
	9.50%	1.10%	4.00%	0.10%	0.10%		0.10%	0.10%	0.10%			0.20%
A380.1	7.50%				3.00%							
	9.50%	1.00%	4.00%	0.50%	0.10%		0.50%	2.90%	0.35%			0.50%
B380.1	7.50%				3.00%							
	9.50%	1.00%	4.00%	0.50%	0.10%		0.50%	0.90%	0.35%			0.50%
383.1	9.50%				2.00%							
	11.50%	1.00%	3.00%	0.50%	0.10%		0.30%	2.90%	0.15%			0.50%
A390.1	16.00%				0.50%							
	18.00%	0.40%	5.00%	0.10%	0.65%			0.10%		0.20%	0.10%	0.20%

Alloy:	SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	Other Each:	Other Total:
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
B390.1	16.00%		4.00%		0.50%							
	18.00%	1.00%	5.00%	0.50%	0.65%		0.10%	1.40%		0.20%	0.10%	0.20%
409.2	9.00%	0.60%										
	10.00%	1.30%	0.10%	0.10%				0.10%			0.10%	0.20%
A413.1	11.00%											
	13.00%	1.00%	1.00%	0.35%	0.10%		0.05%	0.05%	0.05%			0.10%
A413.2	11.00%											
	13.00%	0.60%	0.10%	0.05%	0.05%		0.05%	0.05%	0.05%			0.10%
435.2	3.30%											
	3.90%	0.40%	0.05%	0.05%	0.05%			0.10%			0.05%	0.20%
443.2	4.50%											
	6.00%	0.60%	0.10%	0.10%	0.05%			0.10%		0.20%	0.05%	0.15%
A444.2	6.50%											
	7.50%	0.12%	0.05%	0.05%	0.05%			0.05%		0.20%	0.05%	0.15%
514.2					3.60%							
	0.30%	0.30%	0.10%	0.10%	4.50%			0.10%		0.20%	0.05%	0.15%
520.2**					9.60%							
	0.15%	0.20%	0.20%	0.10%	10.60%			0.10%		0.20%	0.05%	0.15%
535.2**				0.10%	6.60%					0.10%		
	0.10%	0.10%	0.05%	0.25%	7.50%					0.25%	0.05%	0.15%
707.1				0.40%	1.90%	0.20%		4.00%				
	0.20%	0.60%	0.20%	0.60%	2.40%	0.40%		4.50%		0.25%	0.05%	0.15%
712.2					0.50%	0.40%		5.00%		0.15%		
	0.15%	0.40%	0.25%	0.10%	0.65%	0.60%		6.50%		0.25%	0.05%	0.20%

Alloy:	SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	Other	Other
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Each:	Total:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Min:	Max:
713.1			0.40%		0.25%			7.00%				
	0.25%	0.80%	1.00%	0.60%	0.50%	0.35%	0.15%	8.00%		0.25%	0.10%	0.25%
771.2					0.85%	0.06%		6.50%		0.10%		
	0.10%	0.10%	0.10%	0.10%	1.00%	0.20%		7.50%		0.20%	0.05%	0.15%
850.1			0.70%				0.70%		5.50%			
	0.70%	0.50%	1.30%	0.10%	0.10%		1.30%		7.00%	0.20%		0.30%
851.1	2.00%		0.70%				0.30%		5.50%			
	3.00%	0.50%	1.30%	0.10%	0.10%		0.70%		7.00%	0.20%		0.30%
852.1			1.70%		0.70%		0.90%		5.50%			
	0.40%	0.50%	2.30%	0.10%	0.90%		1.50%		7.00%	0.20%		0.30%

*Beryllium - 0.04% to 0.07%

**Beryllium - 0.003% to 0.007%

Sr and Na modifications are available for the various alloys and are not reflected in the above specifications

Beck Aluminum can provide additional alloys not listed here as well as custom variations.

Based on Aluminum Association specifications, January, 1996 edition

These composition limits are for reference purposes only