

Mill Grade Alloy Composition Limits

Beck Aluminum Corporation

Alloy:	SI	FE	CU	MN	MG	CR	ZN	TI	Other Each:	Other Total:
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
1070	0.20%	0.25%	0.04%	0.03%	0.03%		0.04%	0.03%	0.03%	
1100	0.95% SI + FE		0.05%	0.20%	0.05%	0.10%	0.10%	0.05%	0.05%	0.15%
1145	0.45% SI + FE		0.05%	0.05%	0.05%		0.05%	0.03%	0.03%	
1200	1.0% SI + FE		0.05%	0.05%			0.10%	0.05%	0.05%	0.15%
2011*	0.40%	0.70%	6.00%	0.40%	0.20%		0.30%		0.05%	0.15%
2014**	0.50%		3.90%	1.20%	0.80%	0.10%	0.25%	0.15%	0.05%	0.15%
	1.20%	0.70%	5.00%							
3003	0.60%	0.70%	0.05%	1.00%	0.20%	1.50%	0.05%	0.10%	0.05%	0.15%
3004				1.00%	0.80%					
	0.30%	0.70%	0.25%	1.50%	1.30%		0.25%		0.05%	0.15%
3105				0.30%	0.20%					
	0.60%	0.70%	0.30%	0.80%	0.80%	0.20%	0.40%	0.10%	0.05%	0.15%
5042				0.20%	3.00%					
	0.20%	0.35%	0.15%	0.50%	4.00%	0.10%	0.25%	0.10%	0.05%	0.15%
5052					2.20%	0.15%				
	0.25%	0.40%	0.10%	0.10%	2.80%	0.35%	0.10%		0.05%	0.15%
5083				0.40%	4.00%	0.05%				
	0.40%	0.40%	0.10%	1.00%	4.90%	0.25%	0.25%	0.15%	0.05%	0.15%

Alloy:	SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other
	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Min:	Each:	Total:
	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:	Max:
5182				0.20%	4.00%					
	0.20%	0.35%	0.15%	0.50%	5.00%	0.10%	0.25%	0.10%	0.05%	0.15%
6061	0.40%		0.15%		0.80%	0.04%				
	0.80%	0.70%	0.40%	0.15%	1.20%	0.35%	0.25%	0.15%	0.05%	0.15%
6063	0.20%				0.45%					
	0.60%	0.35%	0.10%	0.10%	0.90%	0.10%	0.10%	0.10%	0.05%	0.15%
6463	0.20%				0.45%					
	0.60%	0.15%	0.10%	0.10%	0.90%	0.10%	0.10%	0.10%	0.05%	0.15%
7050***			2.00%		1.90%		5.70%			
	0.12%	0.15%	2.60%	0.10%	2.60%	0.04%	6.70%	0.06%	0.05%	0.15%
7075			1.20%		2.10%	0.18%	5.10%			
	0.40%	0.50%	2.00%	0.30%	2.90%	0.28%	6.10%	0.20%	0.05%	0.15%
7175			1.20%		2.10%	0.18%	5.10%			
	0.15%	0.20%	2.00%	0.10%	2.90%	0.28%	6.10%	0.10%	0.05%	0.15%

*Bi 0.20 to 0.60%, 0.20 to 0.60% Pb

**In the case of extruded and forged products, there may be a Zr + Ti limit of 0.20% maximum

***0.08 to 0.15% Zr

These composition limits are for reference purposes

Based on Aluminum Association specifications, January, 2001