

**ARCO Metal Specification**

(Revised 12/21/09)

Manual (This document when printed is uncontrolled, ensure that you have the latest version from the [www.loganrawmaterials.com](http://www.loganrawmaterials.com) website)

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Element	3004A	GS6	GS7	3105
Si	0.22	0.26	0.30	0.60
Fe	0.50	0.60	0.70	0.70
Cu	0.26	0.30	0.35	0.30
Mn	0.5-1.40	0.3-1.6	0.1-2.0	0.3-2.0
Mg	0.7-2.0	0.4-2.0	0.1-2.4	0.2-2.4
Pb	<b>0.0100</b>	<b>0.0130</b>	<b>0.0150</b>	<b>0.0150</b>
Cd	0.010	0.013	0.015	0.015
Zn	0.15	0.18	0.20	0.35*
Ti	0.02	0.03	0.04	0.05
Na	<b>0.020</b>	<b>0.025</b>	<b>0.030</b>	<b>0.030</b>
Ca	<b>0.020</b>	<b>0.025</b>	<b>0.030</b>	<b>0.030</b>
Cr	0.03	0.05	0.07	<b>0.20*</b>
B	0.0010	0.0010	0.0010	0.0010
Be	0.0001	0.0001	0.0001	0.0001
Li	0.0005	0.0005	0.0005	0.0005
Others Each	0.03	0.04	0.05	0.05
Others Total	0.10	0.12	0.15	0.15

Element	5182A	5182B	5182C
Si	0.14	0.17	0.20
Fe	0.28	0.30	0.33
Cu	0.07	0.10	0.12
Mn	0.43	0.45	0.47
Mg	5.0-12.0	4.5-12.0	3.0-12.0
Pb	<b>0.0100</b>	<b>0.0110</b>	<b>0.0120</b>
Cd	0.010	0.013	0.015
Zn	0.07	0.10	0.15
Ti	0.05	0.06	0.07
Na	<b>0.020</b>	<b>0.025</b>	<b>0.030</b>
Ca	<b>0.020</b>	<b>0.025</b>	<b>0.030</b>
Cr	0.04	0.05	0.06
B	0.0010	0.0010	0.0010
Be	0.0001	0.0001	0.0001
Li	0.0005	0.0005	0.0005
Others Each	0.03	0.04	0.05
Others Total	0.10	0.12	0.15

The above are maximums expressed in percent of total

Others each includes: Bi, Ni, Sn, Zr, V

Others total includes: Ti, Na, Ca, Cd, Pb, Be, Ni, Cr, Sn, V, Zr, B.

Must be low profile sow or standard T-Bar

All pieces must be marked with heat number

**\*Preferred Cr<.15, Zn<.30**

## Element Reporting Requirements for RSI and primary aluminum are shown below.

### Lithium

Material from reduction plants using Lithium in their process is not acceptable.

### RSI Sow Heat Variation

Maximum heat variation for all ARCO Specs must be no greater than 150% of the average per element. Heat variation greater than 150% of the average per element will not be accepted without prior approval from ARCO.

***Italicized numbers in the specification tables above are absolute maximums by heat, unless otherwise approved in advance of shipment.***

### Loading of RSI Sow

Please load heats on truck/railcar in the same order as listed on the COA sheet. This does not apply to prime aluminum. For additional shipping requirements [click here](#) for the RSI/Prime/Melttable Shipping and Receiving page.

### Prime Standards

Aluminum Association Gold Sheets - International Designations and Chemical Composition Limits for Unalloyed Aluminum - North American and International Registration Record, March, 2007 can be obtained from:

<http://www.aluminum.org>

### Element Reporting Requirements

Name	Symbol	RSI (40)	Prime Aluminum (30)	Slab, Plate, Coil, Other * (16)	Decimal Reporting
Silicon	Si	Y	Y	Y	3
Iron	Fe	Y	Y	Y	3
Copper	Cu	Y	Y	Y	3
Manganese	Mn	Y	Y	Y	3
Magnesium	Mg	Y	Y	Y	3
Chromium	Cr	Y	Y	Y	3
Nickel	Ni	Y		Y	3
Zinc	Zn	Y	Y	Y	3
Titanium	Ti	Y	Y	Y	3
Boron	B	Y	Y	Y	4
Sodium	Na	Y	Y	Y	4
Calcium	Ca	Y	Y	Y	4
Lithium	Li	Y	Y	Y	4
Vanadium	V	Y	Y	Y	4
Lead	Pb	Y	R**	Y	4
Tin	Sn	Y		Y	4
Bismuth	Bi	Y		Y	4
Beryllium	Be	Y		Y	4
Cadmium	Cd	Y		Y	4
Phosphorus	P	Y		Y	4
Antimony	Sb	R**		Y	4
Zirconium	Zr	Y			4
Gallium	Ga	Y	Y	Y	4

\* Aluminum alloys, excludes prime aluminum and RSI  
\*\* R=Recommended