

## Tri-State Aluminum - Aluminum Standards

nominal chemical composition/general information

general information/characteristics

**TABLE 1.1 Nominal Chemical Composition—Wrought Alloys**

The following values are shown as a basis for general comparison of alloys and are not guaranteed. Refer to Standards Section, Table 6.2, for composition limits.

PERCENT OF ALLOYING ELEMENTS—Aluminum and Normal Impurities Constitute Remainder								
Alloy	Silicon	Copper	Manganese	Magnesium	Chromium	Nickel	Zinc	Titanium
1050	..	..	99.50 percent minimum aluminum			..	..	..
1060	..	..	99.60 percent minimum aluminum			..	..	..
1100	..	0.12	99.00 percent minimum aluminum			..	..	..
1145	..	..	99.45 percent minimum aluminum			..	..	..
1200	..	..	99.00 percent minimum aluminum			..	..	..
1230	..	..	99.30 percent minimum aluminum			..	..	..
1235	..	..	99.35 percent minimum aluminum			..	..	..
1345	..	..	99.45 percent minimum aluminum			..	..	..
1350 ⑥	..	..	99.50 percent minimum aluminum			..	..	..
2011 ①	..	5.5	..	..	..	..	..	..
2014	0.8	4.4	0.8	0.50	..	..	..	..
2017	0.50	4.0	0.7	0.6	..	..	..	..
2018	..	4.0	..	0.7	..	2.0	..	..
2024	..	4.4	0.6	1.5	..	..	..	..
2025	0.8	4.4	0.8	..	..	..	..	..
2036	..	2.6	0.25	0.45	..	..	..	..
2117	..	2.6	..	0.35	..	..	..	..
2124	..	4.4	0.6	1.5	..	..	..	..
2218	..	4.0	..	1.5	..	2.0	..	..
2219 ②	..	6.3	0.30	..	..	..	..	0.06
2319 ②	..	6.3	0.30	..	..	..	..	0.15
2618 ③	0.18	2.3	..	1.6	..	1.0	..	0.07
3003	..	0.12	1.2	..	..	..	..	..
3004	..	..	1.2	1.0	..	..	..	..
3005	..	..	1.2	0.40	..	..	..	..
3105	..	..	0.6	0.50	..	..	..	..
4032	12.2	0.9	..	1.0	..	0.9	..	..
4043	5.2	..	..	..	..	..	..	..
4045	10.0	..	..	..	..	..	..	..
4047	12.0	..	..	..	..	..	..	..
4145	10.0	4.0	..	..	..	..	..	..
4343	7.5	..	..	..	..	..	..	..
4643	4.1	..	..	0.20	..	..	..	..
5005	..	..	..	0.8	..	..	..	..
5050	..	..	..	1.4	..	..	..	..
5052	..	..	..	2.5	0.25	..	..	..
5056	..	..	0.12	5.0	0.12	..	..	..
5083	..	..	0.7	4.4	0.15	..	..	..
5086	..	..	0.45	4.0	0.15	..	..	..
5154	..	..	..	3.5	0.25	..	..	..
5183	..	..	0.8	4.8	0.15	..	..	..
5252	..	..	..	2.5	..	..	..	..
5254	..	..	..	3.5	0.25	..	..	..
5356	..	..	0.12	5.0	0.12	..	..	0.13
5454	..	..	0.8	2.7	0.12	..	..	..
5456	..	..	0.8	5.1	0.12	..	..	..
5457	..	..	0.30	1.0	..	..	..	..
5554	..	..	0.8	2.7	0.12	..	..	0.12
5556	..	..	0.8	5.1	0.12	..	..	0.12
5652	..	..	..	2.5	0.25	..	..	..
5654	..	..	..	3.5	0.25	..	..	0.10
5657	..	..	..	0.8	..	..	..	..

For all numbered footnotes, see page 1-13.

## Tri-State Aluminum - Aluminum Standards

characteristics/general information

general information/nominal chemical composition

**TABLE 1.1 Nominal Chemical Composition—Wrought Alloys (concluded)**

The following values are shown as a basis for general comparison of alloys and are not guaranteed. Refer to Standards Section, Table 6.2, for composition limits.

PERCENT OF ALLOYING ELEMENTS—Aluminum and Normal Impurities Constitute Remainder								
Alloy	Silicon	Copper	Manganese	Magnesium	Chromium	Nickel	Zinc	Titanium
6003	0.7	..	..	1.2	..	..	..	..
6005	0.8	..	..	0.50	..	..	..	..
6005A <sup>①</sup>	0.7	..	..	0.55	..	..	..	..
6053	0.7	..	..	1.2	0.25	..	..	..
6061	0.6	0.28	..	1.0	0.20	..	..	..
6063	0.40	..	..	0.7	..	..	..	..
6066	1.4	1.0	0.8	1.1	..	..	..	..
6070	1.4	0.28	0.7	0.8	..	..	..	..
6082	1.0	..	0.7	0.9	..	..	..	..
6101	0.50	..	..	0.6	..	..	..	..
6105	0.8	..	..	0.6	..	..	..	..
6151	0.9	..	..	0.6	0.25	..	..	..
6162	0.6	..	..	0.9	..	..	..	..
6201	0.7	..	..	0.8	..	..	..	..
6262 <sup>⑤</sup>	0.6	0.28	..	1.0	0.09	..	..	..
6351	1.0	..	0.6	0.6	..	..	..	..
6463	0.40	..	..	0.7	..	..	..	..
6951	0.35	0.28	..	0.6	..	..	..	..
7005 <sup>④</sup>	..	..	0.45	1.4	0.13	..	4.5	0.04
7008	..	..	..	1.0	0.18	..	5.0	..
7049	..	1.6	..	2.4	0.16	..	7.7	..
7050 <sup>⑦</sup>	..	2.3	..	2.2	..	..	6.2	..
7072	..	..	..	..	..	..	1.0	..
7075	..	1.6	..	2.5	0.23	..	5.6	..
7108 <sup>⑧</sup>	..	..	..	1.0	..	..	5.0	..
7175	..	1.6	..	2.5	0.23	..	5.6	..
7178	..	2.0	..	2.8	0.23	..	6.8	..
7475	..	1.6	..	2.2	0.22	..	5.7	..
8017 <sup>⑨</sup>	..	0.15	..	0.03	..	..	..	..
8030 <sup>⑩</sup>	..	0.22	..	..	..	..	..	..
8176 <sup>⑨</sup>	0.09	..	..	..	..	..	..	..

Note: Listed herein are designations and chemical composition limits for some wrought unalloyed aluminum and for wrought aluminum alloys registered with The Aluminum Association. This does not include all alloys registered with The Aluminum Association. A complete list of registered designations is contained in the "Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys." These lists are maintained by the Technical Committee on Product Standards of The Aluminum Association.

- ① Lead and Bismuth, 0.40 percent each.
- ⑦ Zirconium 0.12.
- ② Vanadium 0.10, Zirconium 0.18.
- ⑧ Zirconium 0.18.
- ③ Iron 1.1.
- ⑨ Iron 0.7.
- ④ Zirconium 0.14.
- ⑩ Iron 0.55, Boron 0.02.
- ⑤ Lead and Bismuth, 0.55 percent each.
- ⑪ Manganese and Chromium 0.12-0.50
- ⑥ Formerly designated EC.