

UNITED STATES DEPARTMENT OF COMMERCE  
WASHINGTON

National Bureau of Standards  
Certificate of Analysis

Spectrographic Aluminum Standards  
Standard Samples 601 to 604

No.	Name	Copper	Magnesium	Silicon	Iron	Manganese	Nickel	Chromium	Titanium	Zinc
		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
601	Wrought alloy 14S.....	4.38	0.39	0.88	0.52	0.81	-----	0.020	0.015	-----
602	Wrought alloy 24S.....	4.44	1.49	.130	.28	.63	-----	.007	.012	-----
603	Wrought alloy 61S.....	0.29	1.01	.52	.21	-----	-----	.24	.037	-----
604	Casting alloy 142.....	3.98	1.56	.27	.45	-----	2.00	-----	.100	0.029

**CERTIFIED PORTION.** The portion of each disk for which the analysis is certified is included within the ring between radii  $\frac{3}{8}$  inch and  $1\frac{1}{8}$  inches. (The center,  $\frac{3}{8}$  inch radius, and the ring  $\frac{1}{8}$  inch thick at the outer edge of each disk represent segregated sections having compositions differing from that certified.)

**INTENDED USE.** The disks are intended as standards of nominal alloy compositions for application in spectrographic analysis. **Caution:** Under certain spark excitation conditions, the standards may be comparable with highest precision only with samples having similar metallurgical preparation (that is rolled stock) and similar alloy type.

**ANALYSTS.** The certified values represent the averages of chemical determinations made by R. K. Bell and B. B. Bendigo of the National Bureau of Standards and by the Aluminum Research Laboratories, Aluminum Company of America, New Kensington, Pa. Spectrographic tests for identification and homogeneity were made by M. B. Cavanagh of the National Bureau of Standards.

WASHINGTON, 25, D. C., August 14, 1951.

A. V. ASTIN, *Acting Director.*