

U. S. DEPARTMENT OF COMMERCE  
 WASHINGTON 25, D. C.  
 NATIONAL BUREAU OF STANDARDS  
 PROVISIONAL CERTIFICATE OF ANALYSIS  
 SPECTROSCOPIC TITANIUM-BASE STANDARDS

TITANIUM ALLOY, 6 ALUMINUM - 4 VANADIUM

NBS <sup>1/</sup> Designation	653 6AL-4V(A)	654 6AL-4V(B)	655 6AL-4V(C)
Element	Percent		
Al	7.25	6.03	4.63
V	2.58	3.83	5.38

<sup>1/</sup> Size: Disks 1 1/4 in. in diameter and 3/4 in. thick.

The material for each standard was prepared at Armour Research Foundation under contract with the Air Force, Wright Air Development Center. Ingots were made by triple-arc melting under vacuum at Armour, followed by processing to rods for standard samples by Allegheny-Ludlum Steel Corporation.

Preliminary studies of homogeneity were made by Armour Research Foundation, Watertown Arsenal, and Spectrochemical Laboratories Inc.; this was followed by an extensive examination of homogeneity at the National Bureau of Standards. Material was accepted for use as standard samples when the variation in composition of the cross section and along the length did not exceed plus or minus one per cent of the amount present by the specific testing employed.

Samples for chemical analysis were prepared by milling the cross section of the accepted rod material. Chemical analyses were made by the National Bureau of Standards, Washington 25, D.C.; Allegheny-Ludlum Steel Corporation, Brackenridge, Pennsylvania, Watertown Arsenal, Watertown, Massachusetts, and Crucible Steel Company of America, Titanium Division, Midland, Pennsylvania.

Additional titanium-base standards are in preparation and announcements of availability for these and other standards will appear in the technical literature.

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