

Measurement Traceability

PRIMARY STANDARD

Since 1889, the kilogram has been defined as the Kilogram (IPK). The IPK is the primary standard for a platinum alloy which is 90% platinum and 10% (height = diameter).



INTERNATIONAL PROTOTYPE KILOGRAM

mass of an object called the International Prototype virtually all units of mass on Earth. The IPK is made iridium and machined into a circular cylinder (39 mm)

calibration
certificate

The IPK and its six sister copies are stored at the International Bureau of Weights and Measures (BIPM) in Sèvres, France. Official copies of the IPK were made available to other nations to serve as their national standards. These are compared to the IPK roughly every 40 years, thereby providing traceability of local measurements back to the IPK.

NATIONAL STANDARD



The primary national standards are used to calibrate national "working standards" that are used for further calibrations of other standards. In this fashion, the kilogram is ultimately disseminated across the nation in a carefully recorded chain of comparisons that provides traceability back to the original national standard and thus ultimately to the IPK.

WORKING STANDARDS



Various working standards are used to calibrate balances and scales, thereby providing traceability of measurements back to the IPK.

BALANCES & SCALES

