ANSI H35.2-2024
Revision of H35.2-2017

American National Standard Dimensional Tolerances for Aluminum Mill Products

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American National Standard Dimensional Tolerances for Aluminum Mill Products

Secretariat

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American National Standards Institute

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Foreword

This Standard is a revision of "American National Standard Dimensional Tolerances for Aluminum Mill Products" issued in 2017 (ANSI H35.2-2017).

The tolerances included in this Standard were developed by the Technical Committee of The Aluminum Association. They are broadly accepted both within the aluminum industry itself and by users of the metal. They are the basis of the dimensional tolerances specified in U.S. government, technical society, and other specifications for aluminum products. They represent the maximum deviation from specified dimensions that may be expected in any individual piece. For most pieces the deviation from specified dimensions will be less than the tolerance shown.

Work on the tolerances began in the Aluminum Association in 1949, five years before its Technical Committee was established. In that year a special committee was appointed by the Association's Extruded Products Division to develop drafting standards for these products. One of the committee's assignments was to develop standard tolerances for aluminum extrusions. The committee completed its work later in 1949, and the Association issued the first edition of its *Drafting Standards for Extruded and Tubular Products*, including the tolerances, in October of that year.

By 1954, the Association's technical activities had grown to the point that a standing Technical Committee was needed. One of the first jobs undertaken by this committee was the compilation of mechanical property data for commonly used aluminum alloys and dimensional tolerances for other aluminum mill products. This work was completed later in 1954, and the resulting data were published in the first edition of the Association's "Standards for Aluminum Mill Products" in June 1955. Successive editions of the "Standards for Aluminum Mill Products" have been revised to include new data and to keep the manual abreast of industry advances. In 1968 the title was changed to "Aluminum Standards and Data" to reflect the adoption of a revised format.

Many refinements have been made in the tolerances as experience was gained in their use. In addition, tolerances have been developed for products not covered initially, and the data have been extended to embrace the larger sizes now being produced. All of these additions and refinements have been incorporated into this Standard. Included also are definitions of the various products as given in "Aluminum Standards and Data" published by the Aluminum Association, and standard limits for expressing the tolerances.

This Standard was originally developed and subsequently revised using the "canvass" method and published under the proprietary sponsorship of the Aluminum Association. At the request of the Aluminum Association, the establishment of Standards Committee H35 on Aluminum and Aluminum Alloys was authorized by the American National Standards Institute on 17 February 1970, with the Association serving as Secretariat.

The 1971 revision of ANSI H35.2 was the first revision developed by Standards Committee H35, under the "Standards Committee" procedures, and the 1972, 1975, 1978, and 1982 revisions were developed under the auspices of that Committee.

Standards Committee H35 was transferred to an Accredited Standards Committee on December 28, 1983, and this revision was developed under the Accredited Standards Committee method.

This latest (2023) revision consists of numerous updates to the previous (2017) edition which are highlighted throughout the document.