



REGISTRATION RECORD SERIES

Tempers For Aluminum And Aluminum Alloy Products

The Aluminum Association

Incorporated

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FOREWORD

Listed in this booklet are tempers for aluminum and aluminum alloy products registered with The Aluminum Association but not contained in the Association's Aluminum Standards and Data. Property data and other information furnished by the registrants are included.

Some of the registered tempers may be the subject of U.S. patents or patent applications, and their listing herein is not to be construed in any way as the granting of a license under such patent rights.

Tempers for wrought products are given on pages 1-22 and for castings on page 23. Inactive alloys and tempers are listed on pages 26-32.

An explanation for The Aluminum Association's "Temper Designation System" is given in the Aluminum Standards and Data and in the American National Standard ANSI H35.1.

All new registrations and changes to previously registered mechanical property limits are marked and defined. In addition, the registration column also includes a revision date to indicate changes to the property limits originally registered.

TEMPER REGISTRATION

When any aluminum or aluminum alloy material is produced in a temper not previously applied to that material, the temper, along with the alloy designation and product form to which it applies, may be registered with The Aluminum Association.

PROCEDURE FOR INDIVIDUAL REGISTRATION OF TEMPERS

1. Any person, firm or corporation may apply to The Aluminum Association to register a new temper.
2. Selection of the temper designation usually is left to the discretion of the Technical Committee on Product Standards, but consideration will be given to the applicant's choice when circumstances so warrant.
3. The temper is registered when, in the opinion of the Technical Committee on Product Standards, it is judged to be technically correct and complete with respect to the following:
 - a. The temper designation conforms to ANSI H35.1 "Alloy and Temper Designation Systems for Aluminum" (reprinted in The Aluminum Association manual Aluminum Standards and Data).
 - b. The material is offered for sale in the proposed temper and is available for use by more than one user.
 - c. The mechanical property limits applicable to the temper are included. (Limits are shown as tentative unless established in accordance with the data base criteria outlined under "Mechanical Properties" in Section 6, "Standards Section" of the Aluminum Standards and Data).
 - d. The following additional information is included when characteristics, in addition to mechanical properties, are specified for the temper:
 - (1) Test methods by which conformance with the requirements for specified characteristics can be evaluated, OR
 - (2) Details of the practice to be followed in producing the temper.
 - e. The minimum tensile strength limit applicable to the O temper accompany the request for registration of H tempers.
 - f. The indication of a variation in treatment of a basic T temper is limited to one additional digit (excluding zero) unless all available digits have been used, and except as provided for in the Appendix to ANSI H35.1.

TEMPER REGISTRATION (continued)

PROCEDURES FOR ALUMINUM ASSOCIATION TECHNICAL DIVISION (AATD) REGISTRATION OF TEMPERS

A temper for an aluminum alloy material may be registered as an AATD temper when, through formal ballot of the Technical Committee on Product Standards, it is judged to be technically correct with respect to the following:

- a. The temper designation conforms to ANSI H35.1 "Alloy and Temper Designation Systems for Aluminum" (reprinted in The Aluminum Association manual Aluminum Standards and Data).
- b. The material is offered for sale in the proposed temper by more than one producer.
- c. The minimum and/or maximum mechanical property limits applicable to the temper are included.
- d. The following additional information is included when characteristics, in addition to mechanical properties, are specified for the temper:
 - (1) Test methods by which conformance with the requirements for the specified characteristics can be evaluated, OR
 - (2) Details of the practices to be followed in producing the temper.
- e. The minimum tensile strength limit applicable to the O temper accompany the request for registration of H tempers.
- f. The indication of a variation in treatment of a basic T temper is limited to one additional digit (excluding zero) unless all available digits have been used, and except as provided for in the Appendix to ANSI H35.1.
- g. The temper is not being applied to an alloy designated as experimental (with prefix "X").

REQUIREMENTS FOR PROPOSED CHANGES TO REGISTERED TEMPERS

Proposed changes to a registered designation's mechanical properties and/or characteristics:

- a. Require approval by formal ballot of the Technical Committee on Product Standards for registered tempers having "minimum" and/or "maximum" mechanical property limits.
- b. Require a 30-day review by the Technical Committee on Product Standards for registered tempers having "tentative" mechanical property limits, or tempers applied to experimental alloys (with prefix "X"). The registrant has the final authority to change the temper limits, provided the change complies with item 3 under Individual Registration of Tempers. Changes proposed by others than the registrant are acceptable only with the approval of the registrant.

REQUIREMENTS FOR DELETION OF TEMPERS FROM THE REGISTRATION LIST

1. When any alloy is removed from the active alloy registration list, all tempers applicable to that alloy are automatically removed from the active temper registration list.
2. Approval of the Technical Committee on Product Standards through formal ballot is required to effect deletion of any registered temper from the active registration list, except as provided by the preceding sentence.