

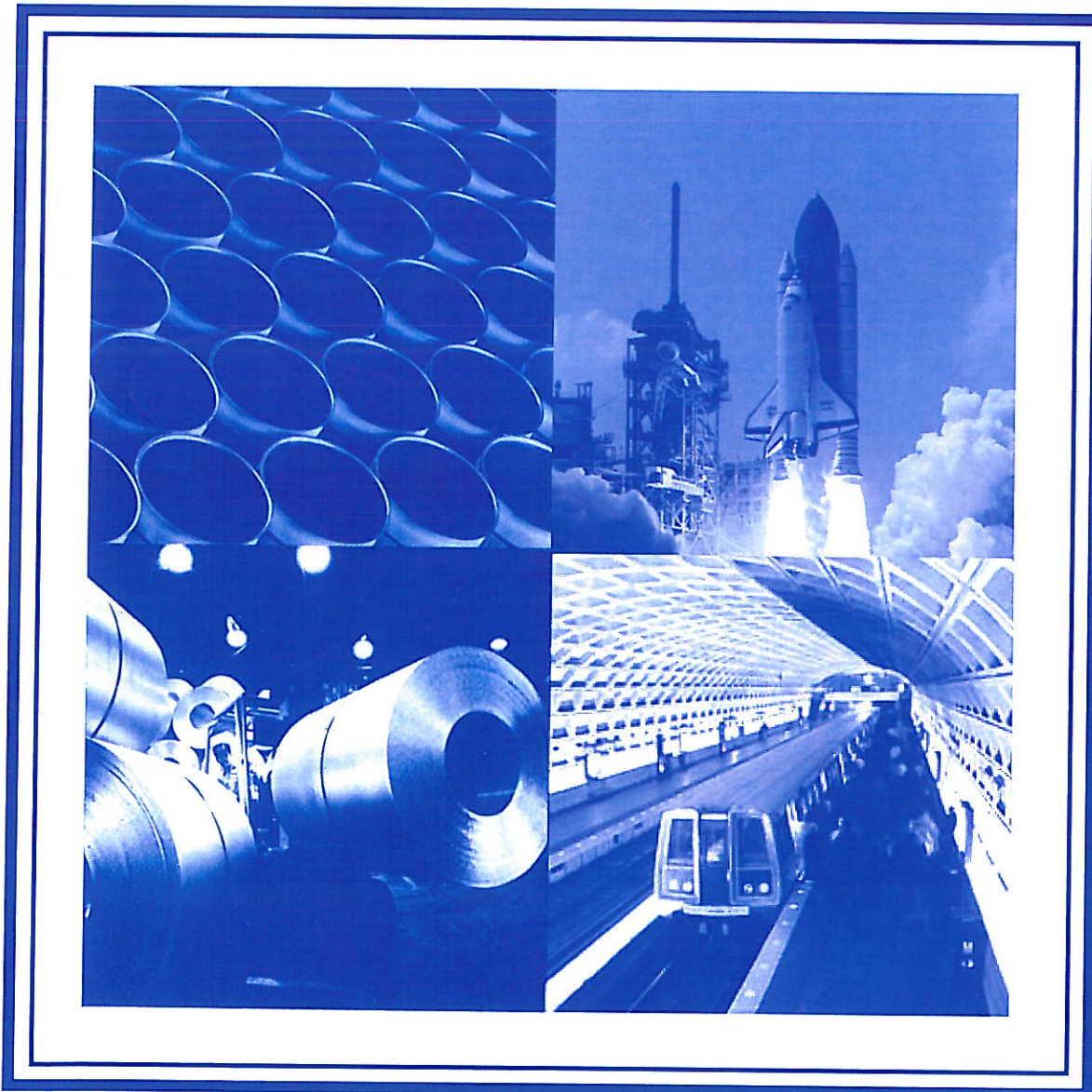
Standard Test Procedure for Measuring the Dissolution of Aluminum Hardeners

TP-2

The Aluminum Association 

Incorporated

Standard Test Procedure for Measuring
the Dissolution of Aluminum Hardeners



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Standard Test Procedure for Measuring The Dissolution of Aluminum Hardeners

1. Scope

The Aluminum Association dissolution test procedure can be used to determine the suitability of an aluminum hardener product for alloying purposes. The test procedure describes a method for measuring dissolution time and recovery of the hardener element under standardized conditions. This method is not intended to predict dissolution rate or recovery under production conditions in commercial operations.

2. **Applicable Specifications and Registration Records** — The following specifications or registration records (the issue in effect on date of material purchase) form a part of the test procedure:

- 2.1 The Aluminum Association Registration Record, "International Designations and Chemical Composition Limits for Aluminum Hardeners" (Gray Sheets).
- 2.2 OSHA - 1910.1200 Hazard Communication Standard.
- 2.3 ASTM Standard E34, Test Methods for Chemical Analysis of Aluminum and Aluminum-Base Alloys, and ASTM E88, Practice for Sampling Nonferrous Metals and Alloys in Cast Form for Determination of Chemical Composition.
- 2.4 ASM Handbook, Volume 9, Metallography and Microstructures, 2004, p. 771.
- 2.5 ASTM B215, Standard Methods for Sampling Finished Lots of Metal Powders.
- 2.6 ASTM E716, Standard Practice for Sampling Aluminum and Aluminum Alloys for Spectrochemical Analyses.

3. **Sample Location, Sample Frequency and Lot Definition**

- 3.1 **Ingot** - Each heat of material shall be considered a lot. An ingot, selected randomly from a heat, may be considered representative of the lot.
- 3.2 **Briquet** - A lot is defined as a finite quantity produced under uniform conditions and should be clearly identified on material packaging. A shipment may contain more than one lot. Sample selection for chemical analysis shall be on a one lot basis and shall consist of one briquet pulled from each of three and not more than five randomly-selected shipping containers. Combined, these briquets are termed a "gross lot sample" and will be the basis for a discreet analytical determination. Multiple "gross lot samples" shall be pulled if multiple chemical determinations are required. Sample selection for dissolution rate testing shall be completed in a similar manner, however, the total number of briquets required is to be based on addition level, and test bath weight. This sample should be held separate from analytical sample(s).