Guidelines for Submittal of New Copper Alloys
For Review by ASTM Task Group 554C

The following are guidelines for the submittal of a new copper alloy for review of chemistry and mechanical properties prior to inclusion into any ASTM Standard Specification for which Sub-committee B05.05 has jurisdiction.

Minimum submittal requirements

1. Description of intended use/application of alloy.
2. UNS designation assigned by the Copper Development Association.
3. Desired chemical composition plus the analysis of twenty (20) heats. These analyses must be performed by an independent laboratory. The methods used to obtain the analyses of each element shall be identified.
4. Desired minimum mechanical properties plus test results from the heats listed in item number 3. The tension test coupons shall be cast to the form and dimensions of the applicable figure in ASTM Practice B208. For alloys being added to standards which address sand castings the tension test coupons shall be molded in green sand or core sand, the use of chills is not permitted. All other processes must follow the guidelines set forth in the applicable ASTM Standard Specifications. The testing shall be performed by an independent testing facility and shall be performed in accordance with ASTM Test Method E8. The certified test report shall include (at least):
   - Ultimate tensile strength
   - Yield Strength
   - Per cent elongation in 2 inches
   - Methods used to cast tension test specimens and obtain reported results
5. When the intended use of the alloy includes pressure containment, mechanical property data shall include values for ultimate tensile strength, yield strength, reduction of area and elongation at 100F intervals from room temperature to a temperature 100F above the maximum intended use temperature, unless the maximum intended use temperature does not exceed 100F (See ASME Boiler and Pressure Vessel Code, Section II, Part D, Appendix 5.)

The above stated requirements are minimums. When deemed necessary the task group may request additional data.