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AEROSPACE
MATERIAL
SPECIFICATION

AMS 4282E

Issued 6- 2- 42

Revised 10- 1- 81

ALUMINUM ALLOY CASTINGS, PERMANENT MOLD
4.5Cu - 2.5Si (B195-T6)
Solution and Precipitation Treated

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 4-26-68. It is recommended that this specification not be specified for new designs.

This cover sheet should be attached to the "E" revision of the subject specification.

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of 10-1-81. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

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AERONAUTICAL MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Avenue, New York 17, N.Y.

AMS 4282E

Issued 6-1-42
Revised 6-15-59

ALUMINUM ALLOY CASTINGS, PERMANENT MOLD 4.5Cu - 2.5Si (B195-T6) Solution and Precipitation Treated

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. COMPOSITION:

Copper	4.0 - 5.0
Silicon	2.0 - 3.0
Iron	1.2 max
Manganese	0.30 max
Zinc	0.30 max
Titanium	0.20 max
Magnesium	0.05 max
Other impurities, total	0.30 max
Aluminum	remainder

3. CONDITION: Solution and precipitation heat treated.

4. TECHNICAL REQUIREMENTS:

4.1 Casting: Castings shall be produced in lots from metal conforming to Section 2. Metal remelted from previously analyzed ingot may be poured directly into castings. Furnace or ladle additions of small amounts of grain refining elements or alloys are permissible. Unless otherwise agreed upon by purchaser and vendor, molten metal taken from alloying furnaces, with or without additions of foundry operating scrap (gates, sprues, risers, and rejected castings), shall not be poured into castings unless first converted to ingot, analyzed, and remelted or until the composition of a sample taken after the last addition to the melt has been found to conform to Section 2.

4.1.1 A melt shall be the metal withdrawn from a batch furnace charge of 2000 lb or less as melted for pouring castings or, when permitted by the purchaser, a melt shall be 4000 lb or less of metal withdrawn from one continuous furnace in not more than 8 consecutive hours.

4.1.2 A lot shall consist of castings poured from a single melt in not more than 8 consecutive hours.

4.2 Test Specimens: Tensile test specimens, and chemical analysis specimens when required, shall be cast and, when requested, shall be supplied with the castings.

4.2.1 Tensile Test Specimens: Shall be cast with each lot of castings, shall be standard (0.5 in. diameter at the reduced parallel section), and shall be cast to size in permanent molds. Metal for the specimens shall be part of the melt which is used for the castings. If the metal for castings is given any treatment, such as fluxing or cooling and reheating, the metal for the specimens shall be a portion of the metal so treated, and during such treatment, shall be heated to the same maximum temperature and held for approximately the same length of time as the molten metal for castings.



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