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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS
4822

B E A R I N G S - C O P P E R L E A D
Steel Back

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

2. FORM: This bearing shall consist of a steel back, lined on one or both sides with a bearing metal having the following composition:

3. COMPOSITION: (a)Bearing Metal:

Copper	68.0 - 75.0
Lead	23.0 - 27.0
Tin	2.0 - 4.0
Silver	0.2 max
Iron	0.35 max
Zinc	0.1 max
Nickel	0.01 max
Phosphorus	0.01 max
Total Other Impurities	0.2 max

(b)Steel Backing: Shall be low carbon and of corresponding hardness to permit machining after bearing metal has been cast on it, unless composition and hardness are otherwise specified on the drawing.

4. SAMPLING: Samples of bearing metal for chemical analysis shall be taken between the surface and a point midway between the copper-lead surface and the bond of the bearing and the backing. The bearing manufacturer may take the chips during the final machining operation.

5. QUALITY: (a)Bearing metal shall be cast from the best grades of metals and shall be uniform in quality, free from oxides, non-metallics, shrinkage, lead segregations, cracks, or other injurious defects under visual examination of finished surfaces. The lead shall appear as a fine uniform dispersion when examined under a microscope at a magnification of 50 diameters.

(b)The steel back shall be free from laps, cracks, seams, or other injurious defects.

(c)Bearing metal shall be well bonded to the steel.

6. REPORTS: The manufacturer shall supply three copies of a report of the chemical composition of the bearing metal on each shipment. This report shall include the material specification number, part numbers, quantity of each part, and the purchase order numbers.

7. IDENTIFICATION: Each finished part shall be identified by a trade mark, or letters as allocated, which shall be etched with acid or an electric pencil at a point designated on the drawing, if a definite location is desired.