

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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BEARINGS, LEADED COPPER  
71Cu - 28Pb - 1Ag  
Steel Back

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

2. TYPE: Steel back having bearing metal cast on one or both faces.

3. COMPOSITION:

3.1 Bearing Metal:

Copper	67.0	-	74.0
Lead	26.0	-	31.0
Silver	0.75	-	1.5
Iron	0.25	max	
Zinc	0.10	max	
Tin	0.05	max	
Nickel	0.01	max	
Phosphorus	0.01	max	
Total Named Elements	99.85	min	

Note: Iron may be as high as 0.35% when finished bearings are over 0.375 in. in thickness or when bearing metal is cast on both faces of the back.

3.2 Back: Low carbon steel, unless otherwise specified on the drawing.

4. TECHNICAL REQUIREMENTS:

4.1 General:

4.1.1 Bearing metal shall be cast from the best grades of metals, at a temperature and cooling rate which will produce the best structure for good bearing properties.

4.1.2 Bearing metal shall be firmly and continuously bonded to the back and shall be free from excessive and injurious lead segregation.

4.2 Hardness of Back: Shall be not higher than Rockwell Superficial 15N-78 or equivalent, unless otherwise specified on the drawing.

5. QUALITY:

5.1 Bearing metal and back shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects, detrimental to their performance.

5.2 Inspection standards and procedures shall be as agreed upon by purchaser and vendor.

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