

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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Revised

BEARINGS, SILVER CLAD STEEL STRIP

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. TYPE: Steel back clad on one or both faces with silver, with bond between steel and silver produced by heat and pressure.
3. APPLICATION: Primarily for shims, thrust washers, bushings, and bearings.
4. COMPOSITION:
 - 4.1 Steel: Shall conform to the following, unless otherwise specified on the drawing:

		Check Analysis	
		Under	Over
Carbon	0.11 - 0.17	0.01	0.01
Manganese	0.75 - 1.00	0.04	0.04
Silicon	0.20 - 0.35	0.02	0.02
Phosphorus	0.040 max	--	0.005
Sulfur	0.040 max	--	0.005
Chromium	0.40 - 0.60	0.03	0.03
Nickel	0.40 - 0.70	0.03	0.03
Molybdenum	0.15 - 0.25	0.02	0.02

- 4.2 Silver: Shall be oxygen-free and shall contain not less than 99.95% silver.

5. CONDITION: Cold rolled.

6. TECHNICAL REQUIREMENTS:

- 6.1 Hardness: Unless otherwise specified, basis steel shall have hardness of Rockwell C 26-38 or equivalent.

- 6.2 Material, after being annealed in an oxygen-free atmosphere, preferably rich in hydrogen, shall withstand, without cracking, bending at room temperature through an angle of 180 deg around a diameter equal to the nominal thickness of the material, with axis of bend parallel to direction of rolling and with silver clad surface on outside of bend.

7. QUALITY:

- 7.1 Material shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.

- 7.2 Silver shall be firmly and continuously bonded to the underlying metal.

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