

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS 4510c

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PHOSPHOR BRONZE SHEET AND STRIP

95Cu - 5Sn

Spring Temper

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

2. FORM: Sheet, strip, and plate.

3. APPLICATION: Primarily for stampings and springs.

4. COMPOSITION:

Copper	93.0 min
Tin	3.5 - 5.8
Phosphorus	0.03 - 0.35
Zinc	0.30 max
Iron	0.10 max
Lead	0.05 max
Antimony	0.01 max
Total Named Elements	99.9 min

5. CONDITION: Cold rolled, spring temper.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Tensile Strength, psi	91,000 - 105,000
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6.2 Hardness: Material should have hardness as follows, or equivalent, but shall not be rejected on the basis of hardness if the tensile property requirement is met:

Nominal Thickness, Inch	Hardness, Rockwell Superficial
0.010 to 0.030, excl	30T 75-79
0.030 and over	30T 77-81
0.040 and over	B 90-96

Note: The term "excl" is used to apply only to the higher figure of the specified range.

7. QUALITY: 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.

8. TOLERANCES: Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2222 as applicable. Thickness, width and straightness tolerances shall be as specified below: