

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4510 A

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PHOSPHOR BRONZE STRIP

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

2. <u>COMPOSITION</u> :	Copper	94.00 - 96.00	
	Tin	3.50 - 5.80	99.50 min
	Phosphorus	0.03 - 0.35	
	Zinc	0.30 max	
	Iron	0.10 max	
	Lead	0.05 max	
	Antimony	0.01 max	

3. CONDITION: (a) Spring temper conforming to the following physical properties:

	Min	Max
Tensile Strength, lb per sq in	91,000	105,000
Rockwell Hardness for thicknesses:		
0.010" to 0.030"	30-T 75	30-T 79
0.030" and over	30-T 77	30-T 81
0.040" and over	B 90 (G69)	B 96 (G75)

(b) Rockwell hardness values are offered as an indication of tensile strength; unless otherwise specified, they will be subject to confirmation by tension tests.

4. QUALITY: The material shall be uniform in quality and temper, clean, smooth, commercially flat, and free from foreign material and all injurious internal and external defects within the limits of best commercial manufacturing practices.
5. TOLERANCES: Permissible variations in thickness of sheet 20 inches wide or less shall be as follows; all dimensions are in inches:

<u>Nominal Thickness</u>	<u>Tolerance, plus and minus</u>
*Up to 0.004, incl.	0.0004
*Over 0.004 to 0.006, incl.	0.0006
Over 0.006 to 0.009, incl.	0.002
Over 0.009 to 0.017, incl.	0.0025
Over 0.017 to 0.026, incl.	0.003
Over 0.026 to 0.037, incl.	0.0035
Over 0.037 to 0.050, incl.	0.004
Over 0.050 to 0.073, incl.	0.0045
Over 0.073 to 0.130, incl.	0.005
Over 0.130 to 0.205, incl.	0.006
Over 0.205 to 0.300, incl.	0.007
Over 0.300 to 0.500, incl.	0.008

*Tolerance applies to a maximum width of 8 inches in these thickness ranges.