

AERONAUTICAL MATERIAL SPECIFICATION

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Revised

INSERTS, THREAD FORM Bronze

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. FORM: Closely wound wire helices, the insides of which, after assembly, provide threads of diameter and pitch specified on drawing.
3. APPLICATION: Primarily to provide moderately hard, wear-resistant, interchangeable threads in metals and nonmetals, and for salvaging worn or damaged threads.
4. COMPOSITION:

Copper	94.00 min
Tin	3.50 - 5.80
Phosphorus	0.03 - 0.17
Zinc	0.30 max
Iron	0.10 max
Lead	0.05 max
5. CONDITION: Wire shall be cold-drawn, formed to the shape specified on drawing and coiled to produce inserts.
6. TECHNICAL REQUIREMENTS:
 - 6.1 Shaped wire before coiling into inserts shall have tensile strength not lower than 110,000 psi.
 - 6.2 Wire shall withstand, without cracking, bending at room temperature through an angle of 120 degrees around a diameter equal to twice the cross sectional dimension of the wire in the plane of bend.
 - 6.3 Any insert shall be capable of stretching with approximately equal spacing between coils when extended axially beyond its elastic limit.
7. QUALITY:
 - 7.1 Inserts shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to performance of parts.
 - 7.2 Edges of wire in inserts shall be continuous and uniformly smooth.
8. SAMPLES: When so specified, vendor shall supply with each shipment of inserts three straight, 12-in. long samples of the shaped wire representative of that used for making parts.
9. PACKAGING:
 - 9.1 Inserts of different part numbers shall be packed in separate containers.