

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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## AMS 6361

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Revised

STEEL TUBING, (SEAMLESS), ROUND  
Chromium Molybdenum (.27 - .33 Carbon)  
(125,000 T.S. - .188 Max Wall Thickness)

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

2. COMPOSITION:

		<u>Individual Tube</u> <u>Check Analysis</u> <u>Over or Under</u>
Carbon	0.27 - 0.33	0.02 (under only)
Manganese	0.40 - 0.60	0.03
Phosphorus	0.04 max	0.005
Sulphur	0.04 max	0.005
Silicon	0.20 - 0.35	0.02
Chromium	0.80 - 1.10	0.05
Molybdenum	0.15 - 0.25	0.03

3. GRAIN SIZE: 5 or finer as determined on the billet, A.S.T.M. E19-39T, method a, unless otherwise ordered.

4. CONDITION: Heat treated (quenched in oil unless otherwise agreed and tempered) to conform to the following minimum physical properties:

Tensile Strength, lb per sq in.	125,000
Yield Strength (0.2% Set), lb per sq in.	100,000
Equivalent Extension Under Load, inch in 2 in	0.0107
Elongation, % in 2 in. - Full Tube	12
Strip	7

5. QUALITY: (a) This material must be aircraft quality, uniform in temper and must not reveal defects during the fabrication processes.

(b) Finished parts may be subject to magnetic inspection.

(c) The tubing shall have a good workmanlike finish conforming to the best practice for high quality aircraft material. It shall be smooth, clean and free from heavy scale or oxide, burrs, seams, tears, grooves, laminations, slivers, pits and other injurious defects. Surface imperfections such as handling marks, straightening marks, light mandrel and die marks, shallow pits, and scale pattern will not be considered as injurious defects, provided the imperfections are removable within the tolerances specified herein for diameter and wall thickness. The removal of surface imperfections is not required.