

A.E.D. PUBLIC SERVICE / SAFETY

ANNOUNCEMENT - for safety in racecars and aircraft.

Recently we became aware of variances with some of the 4130 tubes available from normal distribution sources. 4130 tube can be manufactured to different specifications. One is an Aircraft AMS-T- 6736 / AMS 6360 (Aerospace Material Specifications) also referred to as MIL- T- 6736, and another is an ASTM A-519 spec. (American Society for Testing Materials). What is the difference? A-519 material is not produced to the same mechanical and chemistry standards that an AMS spec material is produced to AMS-T- 6736 4130 tube has higher minimum mechanical specs than an A-519 tube.



TYPICAL MECHANICAL PROPERTIES:

	Tensile Strength min.	Yield
Strength min.		
4130 To the AMS 6736 Spec.	95,000 psi	75,000 psi
4130 To the A-519 Spec.	90,000 psi	60,000 psi

(Note: these are minimum values, it is possible that an A-519 has the higher mechanicals, it is NOT a guarantee)

Why is this important to know: Aircraft 4130 grade tubes have been the standard material for racecars since the 1950's. All designs, chassis and safety specifications have been developed with the understanding of the high performing strengths of the aerospace grade of 4130. IF, one is to build a chassis or component from a A519 4130 tube, the known strengths and characteristics may not be as expected.

While you may call into a metals distributor and ask for 4130, and they sell you 4130 tube to the A-519 spec, they have in fact sold you what you asked for. One might be attracted to the lower price that these materials sell for. But you did not buy the higher strength 4130 tube. So, what does one request when they order 4130 tubes for their racecar or aircraft?

Place your request for 4130 Cold Drawn Seamless AMS-T- 6736 aircraft spec material. Review your quote to be sure it includes this information or MIL - T -6736. If it does not, ask your provider for confirmation, in writing, that this material meets the request. You may also request the MTR's (Material Test Reports). These are the formal mill quality validation test data. If they cannot provide this information, do not purchase those items for your race car or aircraft.

If you have any questions – please feel contact us. 317-334-0569 or sales@aedmetals.com