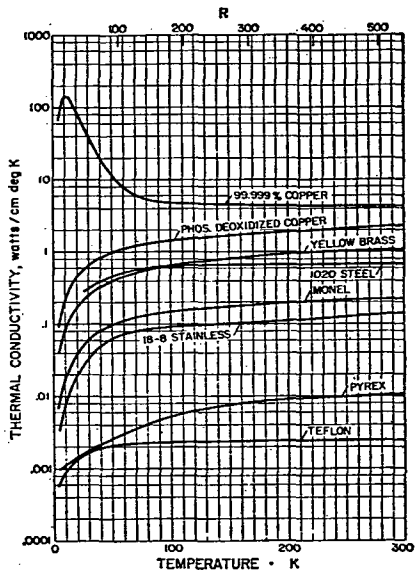
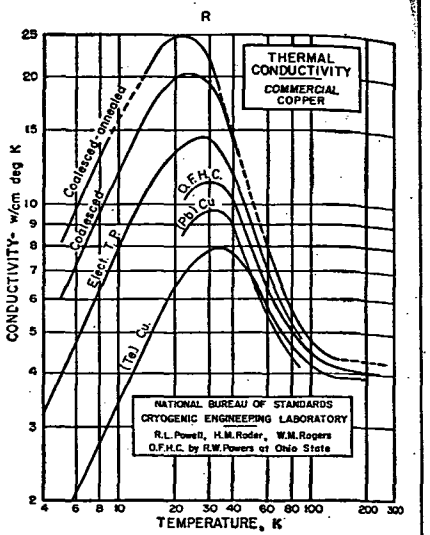


Fig. 23 .... Thermal Conductivities of Selected Materials



(a) Coalesced: 99.98%
(b) Elect. T. P.: Electrolytic Tough Pitch, 99.9+%
(c) OFHC: Oxygen-free high-conductivity, 99.9+%
(d) (Pb) Cu: 99% copper, 1% lead
(e) (Te) Cu: 99% copper, 0.6% tellurium
All in "as fabricated" condition except annealed coalesced copper. See Fig. 23 for phosphorus deoxidized copper (99.8% copper, 0.1% phosphorus).

Fig. 24 .... Thermal Conductivities of Commercial Coppers

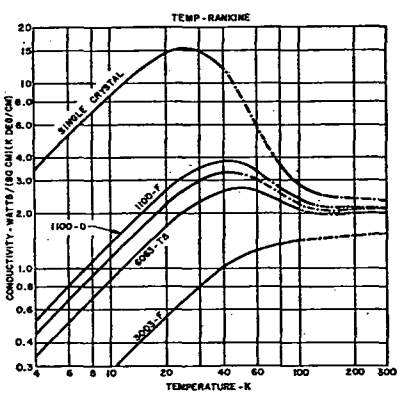


Fig. 25 .... Thermal Conductivities of Commercial Aluminums

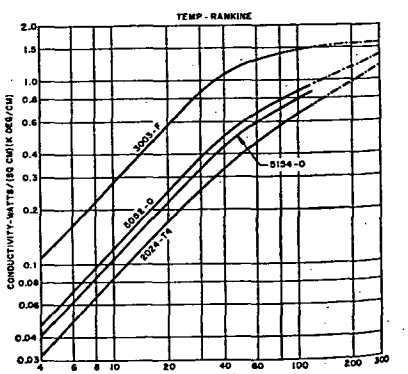


Fig. 26 .... Thermal Conductivities of Aluminum Alloys

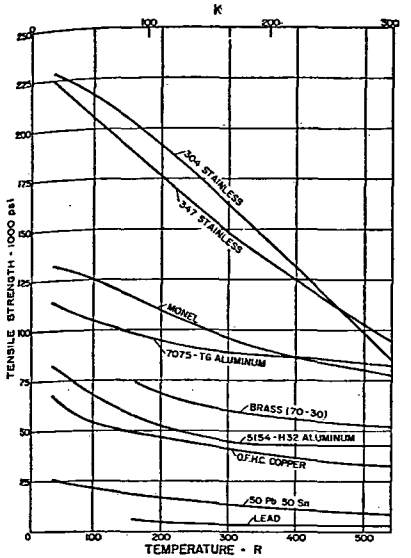


Fig. 27 .... Tensile Strengths of Selected Materials (All in Annealed Condition Except the Two Aluminum Alloys)

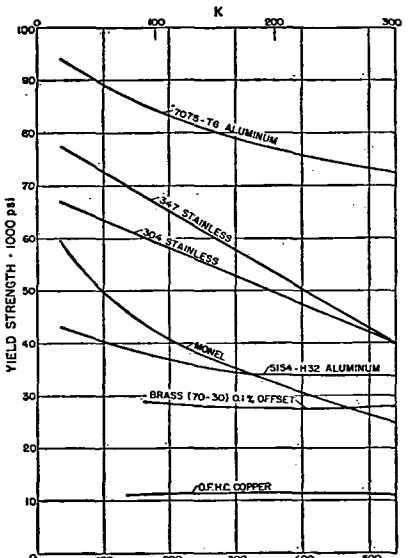


Fig. 28 .... Yield Strengths of Selected Materials (All in Annealed Condition Except the Two Aluminum Alloys—0.2% Offset Except as Noted)

techniques welded and brazed joints can be made with little or no loss of strength in the heated zone. Figs. 27 and 28 give strengths of selected metals and alloys. The data for lead-tin solder are for short-duration loading. Fatigue of soft solder under static load at ambient temperature has been demonstrated.

With the exception of *Teflon*, plastics are embrittled at low temperatures. However, fiber-reinforced plastics can show good properties. Among the film-forming plastics, *Mylar* retains good flexibility even at 40 R (Table 11).

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