

Conductor Facts



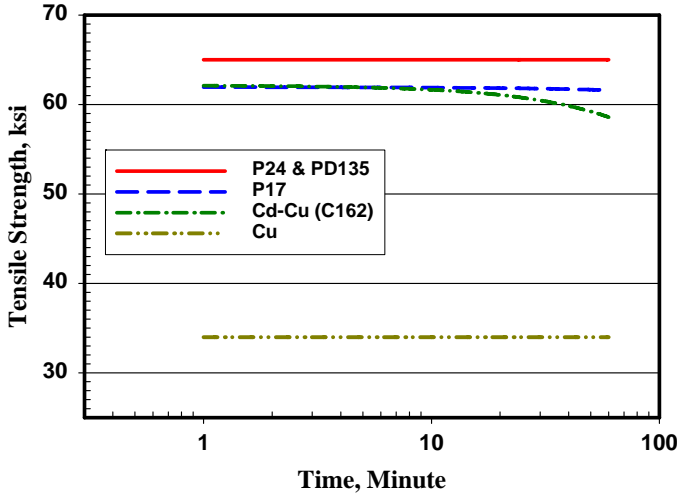
Softening Resistance

Softening resistance indicates the capability of an alloy to maintain its strength when exposed to high temperature.

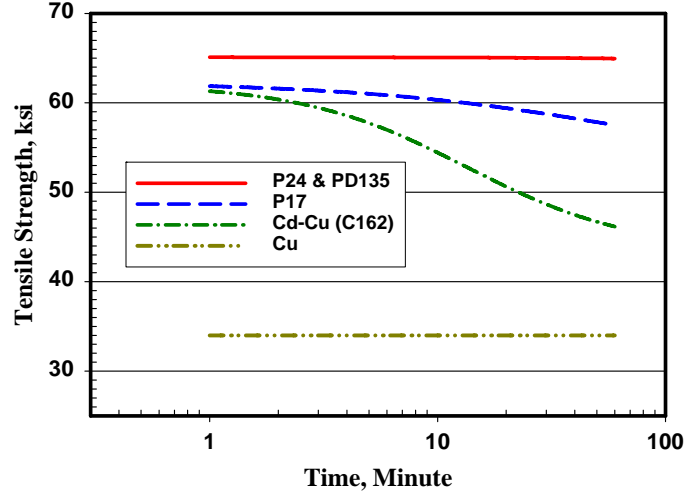
Softening resistance is an aspect of conductor performance that is typically not specified but is established based on the choice of the conductor alloy. As such, Percon 24 and PD135 occupy a class with a higher softening resistance than Percon 17 and cadmium copper. Softening resistance of these four alloys for up to 1 hour at 300°C to 450°C is compared below. The softening resistance is for 19/36 and 19/38 conductors with 8-10% elongation.

Cadmium copper is the only alloy which begins to soften at 300°C. Both Percon 24 and PD135 are essentially stable up to 400°C, but start to soften at 450°C with Percon 24 showing a greater softening resistance. In ranking these four alloys Percon 24 has the best softening resistance followed by PD135, Percon 17 and lastly Cadmium Copper.

Softening Resistance at 300°C



Softening Resistance at 350°C



Softening Resistance at 400°C

