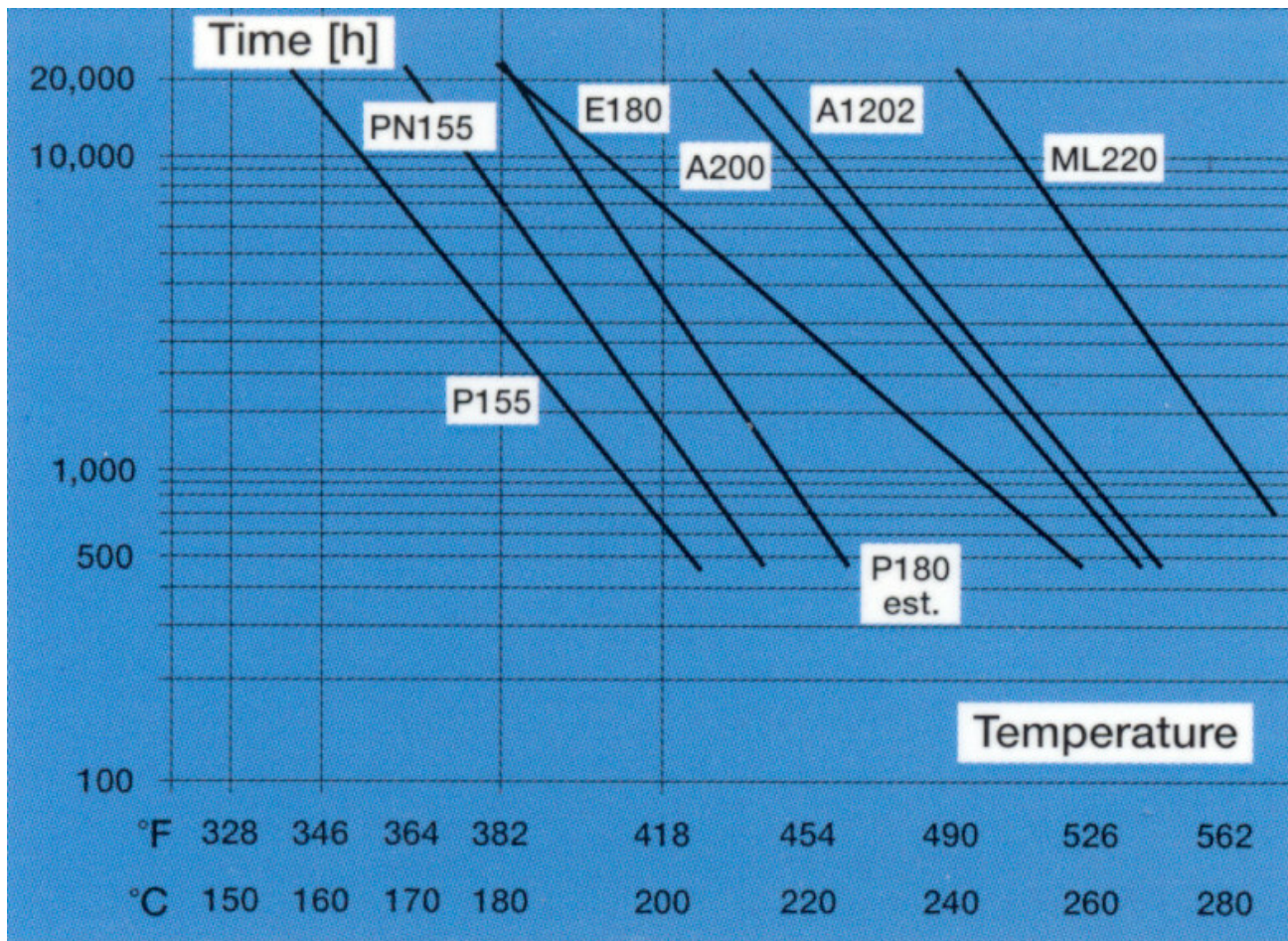# ELEKTRISOLA

Temperature Index according to ASTM D2307

The diagram is basically a best fit plot of at least three thermal aging data points resulting from testing sets of at least 10 twisted pair wire samples that have been subjected to different temperatures over time with at least one set enduring at least 5,000 hours of aging. The wire is exposed to heat in a circulating air oven and proof-voltage tested at intervals of several days until the twisted pairs no longer withstand a specific minimum voltage. After all samples have failed an average of the hours is plotted on this graph with hours to fail on the vertical axis and the exposure temperature on the horizontal axis. Regression analysis is performed on the sets of data points to determine the best-fit plot of a line representing the points. This line is extended to intercept the 20,000 hour time, then the temperature corresponding to this intercept point is determined. This value, in degrees C, is called the Temperature Index. The various plot lines on the graph "Diagr. 1" represent the thermal aging regression lines for seven different insulation types offered by Elektrisola. In brief, the further the line is to the right on the diagram, the more relative thermal resistance the wire insulation has and the higher thermal class it can be expected to satisfy in an application.