Temperature changes the governing design criteria and grade limits

High-Temperature Steel for Pipe and Tube: Grades, Properties and Service Limits

Approx. temperature	Engineering issue becoming more important	Valid interpretation
~20 °C	Short-term properties, pressure design and corrosion	Ambient reference, not a hot-service basis.
~350 °C and above	Time-dependent deformation can become relevant in steels.	Screening warning only; code and grade govern.
~500 °C and above	Creep and temperature-dependent strength reduction become increasingly important.	Room-temperature YS/TS are not direct design allowable values.
~600 °C	Many steels show major strength reduction with stronger oxidation/creep concerns.	Material family, exposure time and code data must be checked.

Source / basis: https://niktrd.com/high-temperature-steel