

Platinum DPH-Strong

Pt DPH-Strong

Platinum DPH-Strong is an oxide dispersion hardened grade of pure platinum. It is commonly used in high temperature applications when the use of Rhodium cannot be tolerated or in times of high Rhodium prices (e. g. crucibles and equipment for processing special optical glasses). Pt DPH-Strong does offer improved mechanical properties compared to Pt DPH. The hardening which results from the oxide particles, represents the most effective strengthening mechanism of the material. Due to the modified microstructure, DPH is considerably less sensitive to corrosion processes along the grain boundaries than comparable materials. These characteristics allow for extended life and results in the precious metal to be used more economically. An example would be reduced wall thicknesses of Pt DPH-Strong compared to Pt or increased lifetime.

General information

Applications	glass manufacturing, casting dishes, glass fibre bushings, crucibles, laboratory equipment (crucibles), glass stirrers, plunger
Product Forms	sheet, tube, wire
Density, g/cm ³	21.27
Melting Point, °C	1770

Forming Processes

Material Behaviour	ductile
Forming Process	machinable, formable

Mechanical Properties

Young's Modulus, GPa	162
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Contact

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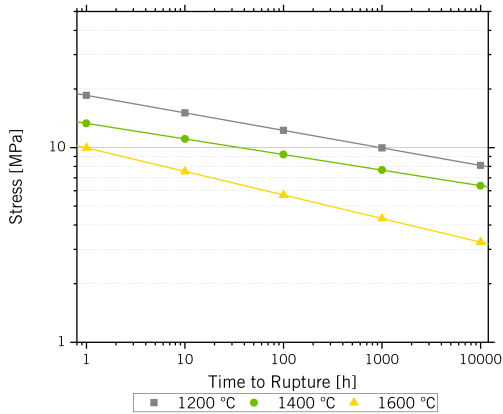
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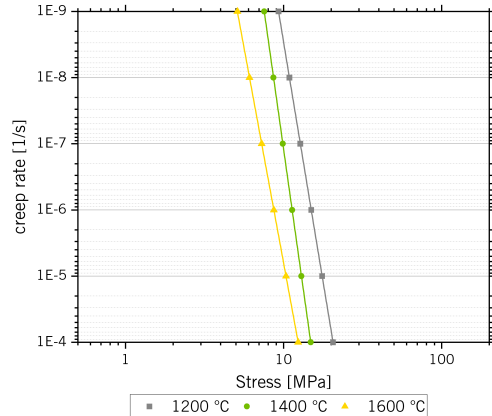
Pt DPH-Strong

Creep Rupture



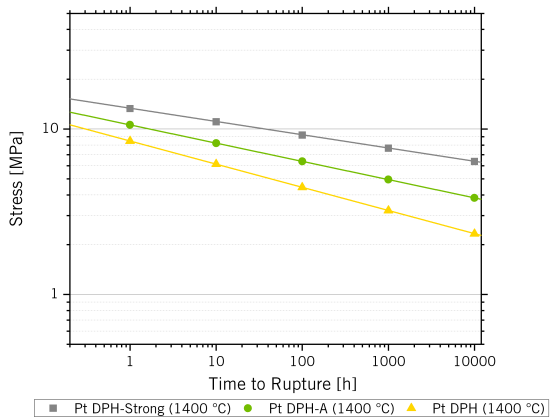
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Norton



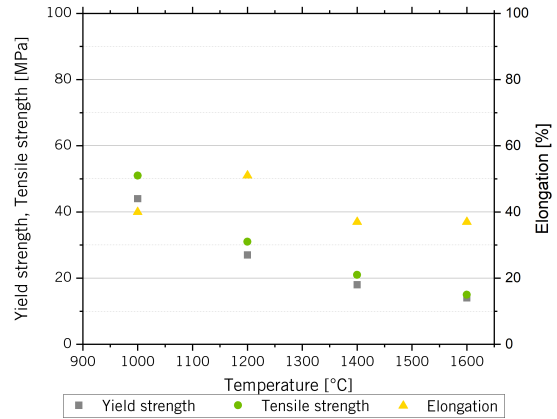
source: measured and extrapolated

Creep Rupture – Comparison



source: measured and extrapolated

High Temperature Tensile Test



source: measured

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