

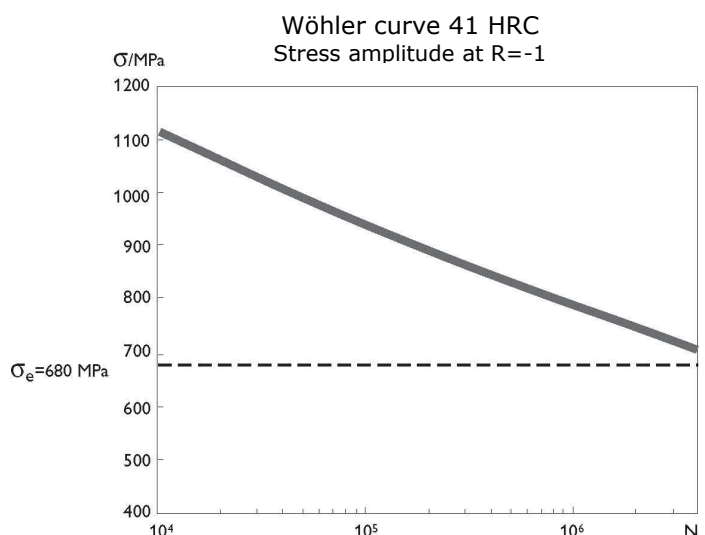
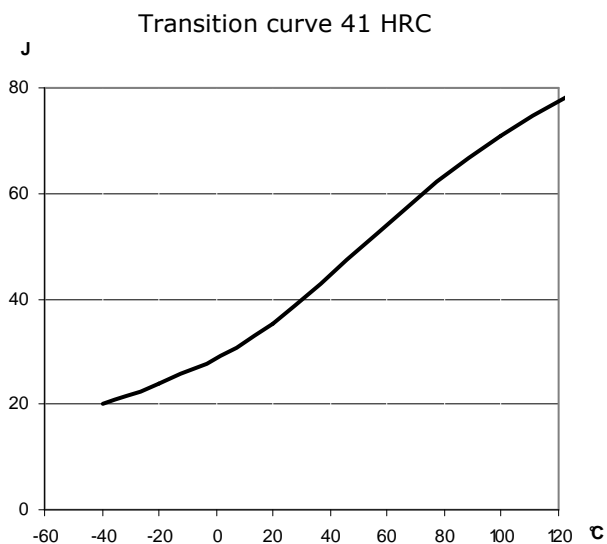
Material data

UDDEHOLM COMPONENT BUSINESS

UDDEHOLM THG 2000

Hardened and tempered to 40 - 42 HRC, at 20°C (68°F)

Physical properties	Metric	English
Density	7 800 kg/m ³	0.282 lbs/in ³
Mechanical properties		
Hardness	40 - 42 HRC	40 - 42 HRC
Hardness, MAX recommended	50 HRC	50 HRC
Ultimate tensile strength, R _m	1300 N/mm ²	189 000 psi
Yield strength, R _{p0,2}	1100 N/mm ²	160 000 psi
Elongation at break, A ₅	12 %	12 %
Reduction of area, Z	50 %	50 %
Modulus of elasticity	210 000 N/mm ²	30.5x10 ⁶ psi
Poisson's ratio	0,29	0.29
Impact toughness, Charpy-V	15 J	11 ft lb
Shear modulus of elasticity	80 000 N/mm ²	1.16 x10 ⁶ psi
Thermal properties		
Coefficient of thermal expansion, linear	12,6 µm/m °C (20-200°C)	7.0 µin/in °F (68-390°F)
Specific heat capacity	460 J/kg °C	0.11 BTU/lb-°F
Thermal conductivity	25 W/m °C	202 BTU in/h ft ² °F



Expected values valid for Round Bars up to Ø63.5 mm, longitudinal.