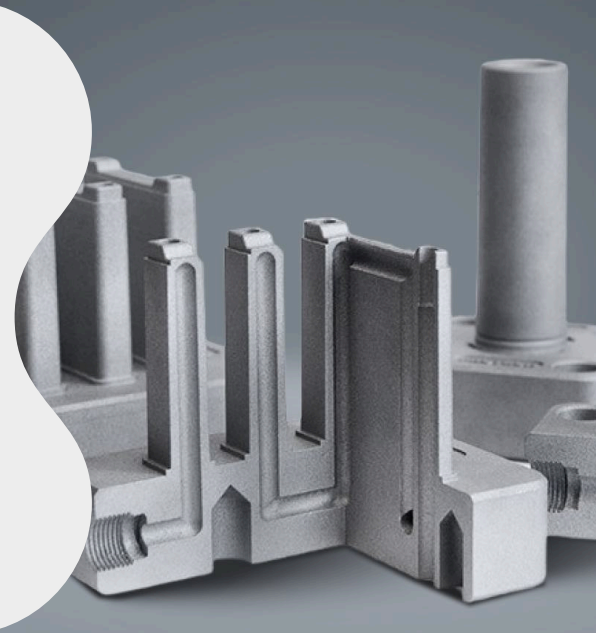




UDDEHOLM CORRAX MATERIAL — STAINLESS STEEL



Uddeholm Corrax® is a stainless tool steel designed for the manufacture of moulds with high corrosion resistance and the ability to achieve hardness levels from 32 to 50 HRC with simple heat treatment. Moulds made from this material are used for producing medical devices as well as parts made from corrosion-active plastics (including PVC) and rubber.

Its high corrosion resistance reduces maintenance costs and ensures stable cycle times even during long production runs. The simplicity of heat treatment allows flexible adjustment of the required hardness and lowers production costs.

Physical Characteristics

Parameter	20 °C	200 °C	400 °C
Density, g/cm ³	7,7	≈ 7,65	≈ 7,59
Modulus of Elasticity, N/mm ²	200 000	190 000	170 000
Coefficient of Linear Thermal Expansion, 1/°C	≈ 11.2×10 ⁻⁶	11.7×10 ⁻⁶	12.3×10 ⁻⁶
Thermal Conductivity, W/(m·K)	≈ 15.3	18	21

**Data are calculated for a sample part but may differ for your component.*

Mechanical Characteristics

Material Condition	Hardness HRC ~34	Hardness HRC ~40	Hardness HRC ~46	Hardness HRC ~50)
Yield Strength $R_{p0.2}$, GPa	0.70	1.00	1.40	1.60
Tensile Strength R_m , GPa	1.10	1.20	1.50	1.70
Elongation A_5 , %	15	15	11	10
Hardness, HRC	34	40	46	50

Chemical Composition

C	Si	Mn	Cr	Ni	Mo	Al
0.03	0.3	0.3	12	9.2	1.4	1.6