

BÖHLER **K390**
MICROCLEAN[®]

**BÖHLER**
EDELSTAHL

COLD WORK TOOL STEEL – POWDER-METALLURGY GRADE, WITH EXCELLENT WEAR RESISTANCE

PROPERTIES

Highly alloyed cold work tool steel produced by the most modern powder-metallurgical method with:

- **Excellent wear resistance**
- **High compressive strength**
- **Very good hardening behaviour**
- **Good ductility and toughness properties**

In addition, manufacturing using 3rd generation PM-production technology at BÖHLER leads to excellent purity levels, good fatigue properties and very good machinability attributes (e.g. good grindability).



BÖHLER K390 MICROCLEAN®

HEAT TREATMENT

Annealing:

Hardness after annealing: < 280 Brinell

Hardening:

Austenitising temperature: 1030 – 1180 °C

Quenching: oil, salt bath, compressed air, nitrogen

SURFACE TREATMENT

Nitriding: Parts made of this steel can be bath, gas and plasma nitrided.

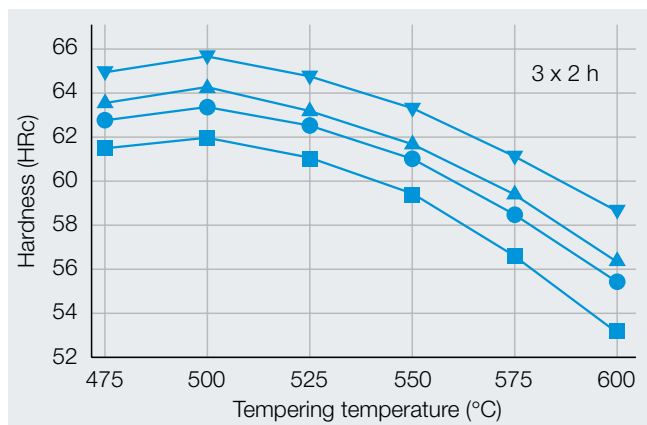
Coating: PVD- or CVD-coating is possible in certain applications.

CHEMICAL ANALYSIS

C	Cr	W	Mo	V	Co
2.5	4.0	1.0	4.0	9.0	2.0

(guide analysis, in weight %)

Typical hardness values after vacuum hardening, N₂ quenching down to room temperature (cooling parameter $\lambda_{8/5} \approx 1$) and tempering 3 x 2 hours:



■ Vacuum / N₂: 1030 °C ▲ Vacuum / N₂: 1110 °C
● Vacuum / N₂: 1070 °C ▼ Vacuum / N₂: 1180 °C

