

1.2343

X38CrMoV5-1 / WCL

HOT WORK TOOL STEEL

APPLICATION

Steel for the processing of light metal alloys, hot extrusion tools, tools for the manufacture of hollows, tools for the manufacture of screws, nuts, rivets and bolts. Hot work tool steel with good ductility, good thermal conductivity, resistant to cracking at high temperatures, resistant to cooling and thermal shock, high hardenability and tempering resistance during work, good polishability

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	Mo	V
min	0.33	0.80	0.25	max	max	4.80	1.10	0.30
maks.	0.41	1.20	0.50	0.03	0.02	5.50	1.50	0.50

TREATMENT

Hardening	1020°C ± 10°C / oil
Tempering	550°C ± 10°C (see tempering diagram)
Hardness [HRC]	min. 48

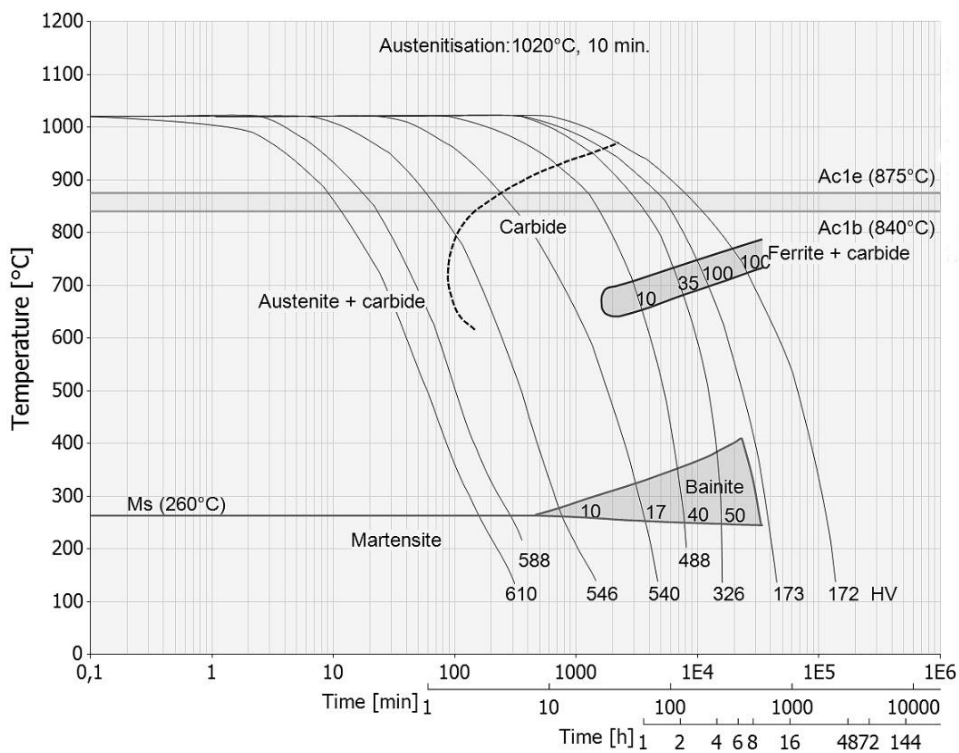
ADDITIONAL HEAT TREATMENT

Soft annealing	750 - 780°C
Stress relieving	650 - 680°C (only for soft delivery conditions)
Additional quenching media	Air, hot bath 500°C, fluidised bed, gas overpressure

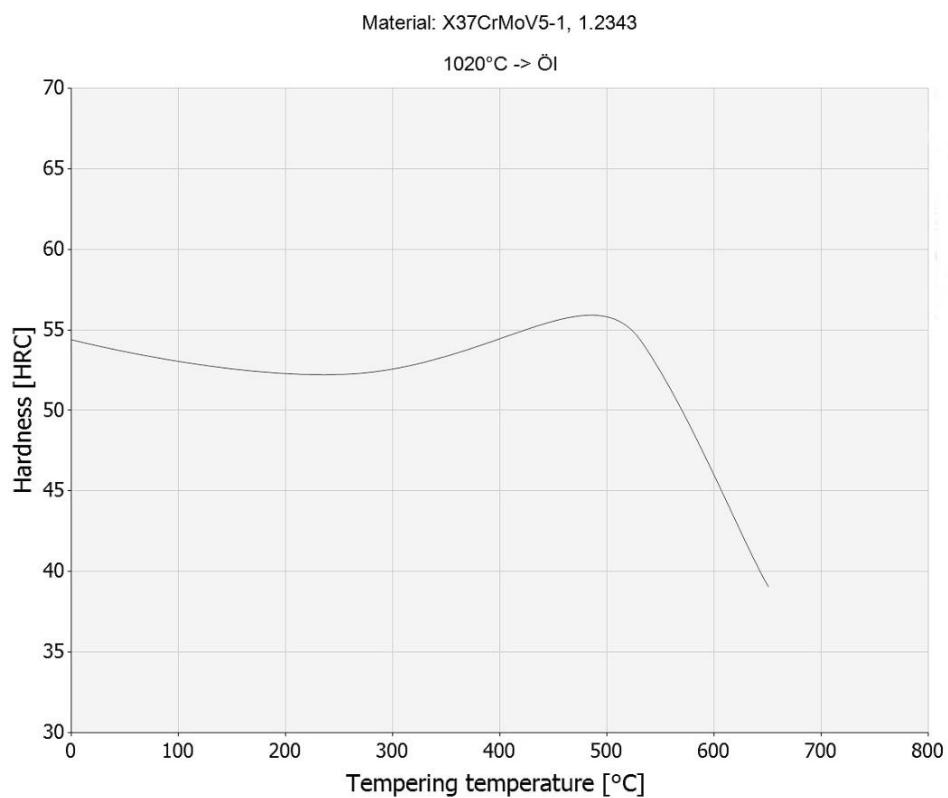
MECHANICAL PROPERTIES

Condition	Soft annealed (+A)	Annealed and cold drawn (+A+C)
Hardness [HB]	max. 229	max. 249

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



TEMPERING DIAGRAM



NOTE: All technical information is for reference onl