

1.2201

X165CrV12/ NC10

COLD WORK TOOL STEEL

APPLICATION

Pressurized tools, drawing, bending, sinking and extrusion tools, thread rolls, forging rolls, rings, knives, punches, gauges, forging rolls, large dies, discs for the production of bent profiles.

CHEMICAL COMPOSITION

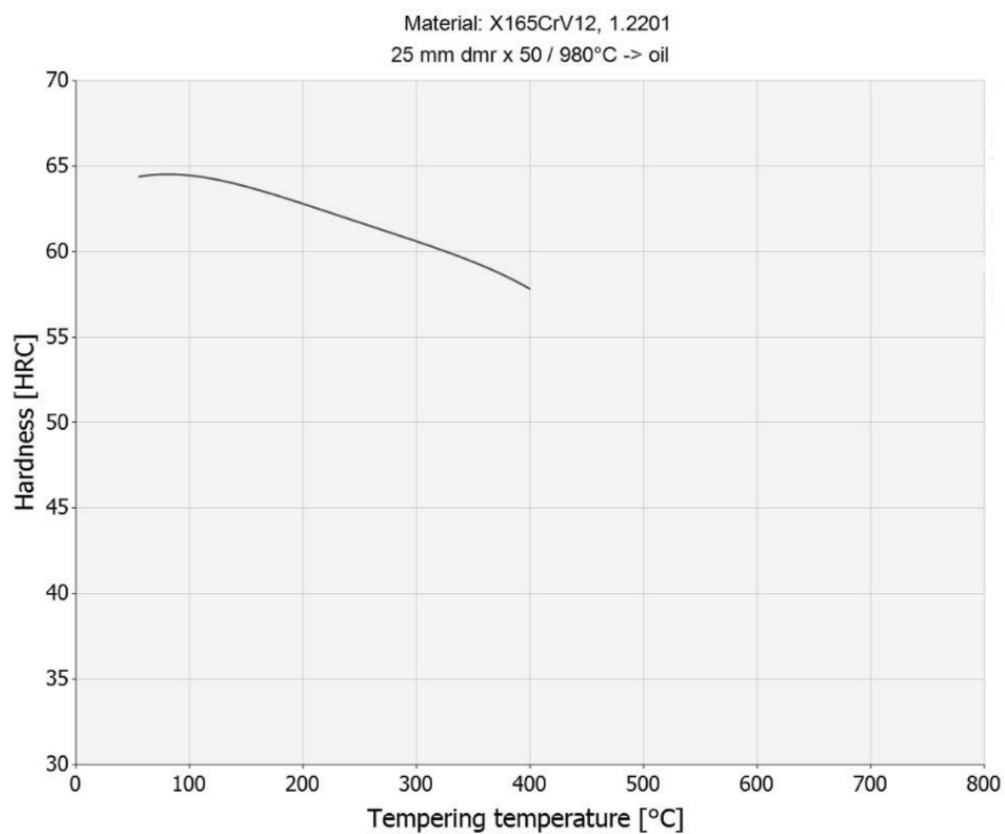
Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	V
min	1.55	0.25	0.20	max	max	11.00	0.07
max	1.75	0.40	0.40	0.035	0.035	12.00	0.12

TREATMENT

Soft annealing	820 - 850°C / maks. 230 HB; maks. 775 N/mm ²
Hardening	960 -1000°C / Oil, warm bath 500°C, fluidized bed, gas; about 64 HRC
Stress relieving annealing	650 - 680°C / in tempered condition below last tempering temperature
Preheating	350°C, depending on dimension

TEMPERING DIAGRAM



NOTE: All technical information is for reference only.