

BUDERUS CORROSION-RESISTANT KNIFE STEEL 4916 NITRO-B X45CrMoVN15

	C	Si	Mn	P	S	Cr	Mo	V	N
Typical analysis	0.50	0.60	0.55	0.025	0.001	14.70	0.60	0.10	0.15
Chemical composition as per DIN EN 10088	0.45 - 0.55	≤ 1.00	≤ 1.00	≤ 0.040	≤ 0.015	14.00 - 15.00	0.50 - 0.80	0.10 - 0.20	

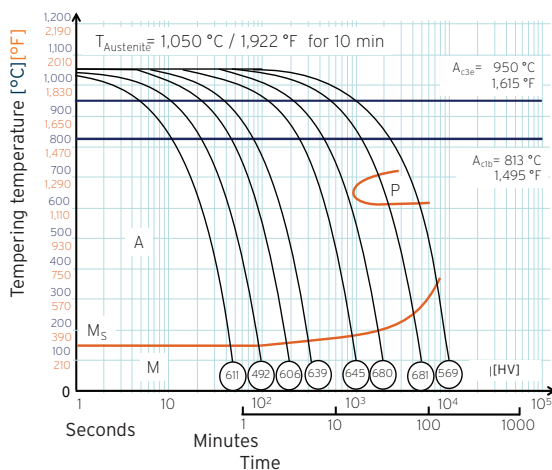
Values in weight %

HEAT TREATMENT

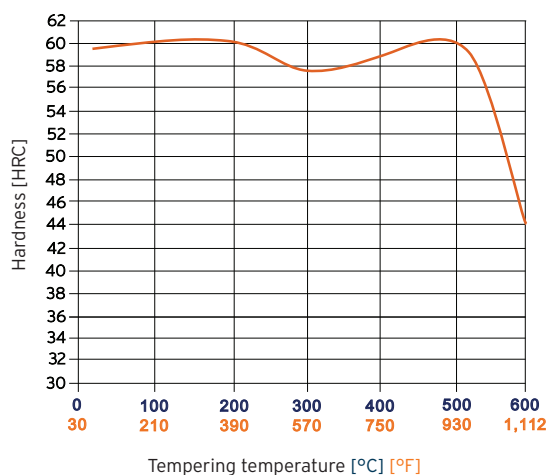
Soft annealing	750 °C - 800 °C (furnace)	1,380 °F - 1,470 °F (furnace)
Hardening	1,030 °C - 1,100 °C (oil)	1,885 °F - 2,010 °F (oil)
Tempering	see tempering curve	

PHYSICAL PROPERTIES (REFERENCE VALUES FOR 20 °C / 68 °F)

Density [g/cm ³]	7.7
Young's modulus [GPa]	215
Thermal expansion [10 ⁻⁶ /K]	11.2
Thermal conductivity [W/m*K]	30.0
Electrical resistance [Ω * mm ² /m]	0.65



TTT CURVE (CONTINUOUS)



TEMPERING CURVE AFTER SUPER-COOLING

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