

Quality	41Cr4							
According to Standard	EN 10083 - 3 : 2006							
Number	1.7035							
Comparable Standards	German DIN	France AFNOR	Spain UNE	China GB	U.K. B.S.	Russia GOST	USA AISI - SAE	Japan JIS
	41Cr4	42C4	F.1211	40Cr	530M40	40Ch . 41X	5140	SCr440M
Chemical Analysis	C% max	Si% max	Mn% max	P% max	S% max	Cr%	Mo%	Ni%
	0.38 - 0.45	0.40	0.60 - 0.90	0.025	0.035	0.90 - 1.20	-	-

Hot Work and Heat Treatment Temperatures

Temperature °C

Hot - Forming	End Quench Hardeneability test	Soft Annealing +A	Isothermal Annealing +I	Normalising	Quenching	Spheroidizing	Tempering	Stress-relieving +SR
1100 - 850	850	680 air	820 furnace cooling to 650, then air	860 air	850 Oil, polymer	720 - 740 furnace	550 - 650	50° under the temperature of tempering
	Water	HB max 241	(HB 190 - 220)		or water	cooling	air	

Mechanical Properties at Room Temperature

Hot Rolled Mechanical Properties in Quenched & Tempered condition EN 10083 - 3 : 2006

Size d/t mm		Testing at Room Temperature (Longitudinal)					
From	To	R N/mm2	Rp 0.2 N/mm2	A% min.	C% min.	Kv J min.	HB for information
	16 / 8	1000 - 1200	800	11	30		298 - 359
16 / 8	40 / 20	900 - 1100	660	12	35	35	271 - 331
40 / 20	100 / 60	800 - 950	560	14	40	35	240 - 286

d = diameter t = thickness