

Quality 40NiCrMo7

According to Standard UNI 7845 : 1978

Number



Comparable Standards	German DIN	France AFNOR	Spain UNE	China GB	U.K. B.S.	Russia GOST	USA AISI - SAE	Japan JIS
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40NiCrMo8			F1272		817M40	40HN2M . 40XH2MA	4340	
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Chemical Analysis	C% max	Si% max	Mn% max	P% max	S% max	Cr%	Mo%	Ni%
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0.37 - 0.44	0.15 - 0.40	0.50 - 0.80	0.035	0.035	0.60 - 0.90	0.20 - 0.30	1.60 - 1.90
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Hot Work and Heat Treatment Temperatures

Temperature °C

Hot - Forming	Supply State +U	Soft Annealing +A	Isothermal Annealing +I	Normalising	Quenching	End Quench Hardenability test	Tempering
1100 - 900		680 air	800 furnace	860 air	850	850	550 - 600
			cooling to 640 , then air (HB 230 - 250)	(HB 560~)	oil , polymer	Water	air

Stress-relieving +SR	Quenching	Full Annealing
50° under the temperature of tempering	830	800 - 830
	Water	furnace cooling (HB max 250)

Mechanical Properties at Room Temperature

Hot Rolled Mechanical Properties in Quenched & Tempered condition

Size d/t mm		Testing at Room Temperature					
Dia.	Thick	R	Rp 0.2	A%	C%	Kv	HB
Over	To	N/mm2	N/mm2	min.	min.	J min.	for information
	16	1030 - 1230	835	11		30	311 - 363
	40	980 - 1180	785	11		30	295 - 354
	100	930 - 1130	735	12		30	278 - 339
	100	850 - 1030	665	13		30	253 - 311
	160	780 - 980	635	12		30	232 - 295

d = diameter t = thickness