


Quality According to standards Number	39NiCrMo3 EN 10083-3: 2006 1.6510					
<b>Equivalent</b>	<b>Italy UNI</b>	<b>China GB</b>	<b>Germany DIN</b>	<b>UK</b>	<b>USA AISI/SAE</b>	
	39NiCrMo3		36CrNiMo4		9840	
<b>Chemical composition</b>						
<b>C% max</b>	<b>Si%</b>	<b>Mn%</b>	<b>P% max</b>	<b>S% max</b>	<b>Cr% max</b>	
0.35-0.43	0.4	0.50-0.80	0.025	0.035	0.60-1.0	
	<b>Mo% max</b>	<b>Ni% max</b>	<b>V% max</b>	<b>Al%</b>		
	0.15-0.25	0.70-1.0	-	-		
<b>Temperature °C</b>						
<b>Hot-forming</b>	<b>Quenching</b>	<b>Tempering</b>	<b>Stress Relieving</b>	<b>Carbonitriding</b>		
1100-900	840-850 oil or polymer or water	550-650 air	50°C under the temperature of tempering	870-880 gas tempering 150-200		
<b>Mechanical properties</b>						
<b>Hot Rolled (+QT) EN 10083-3: 2006</b>						
<b>size d/t</b>	<b>Testing at room temperature (longitudinal)</b>					
<b>mm</b>	<b>R (N/mm<sup>2</sup> min)</b>	<b>Rp 0.2 N/mm<sup>2</sup></b>	<b>A% min</b>	<b>C%</b>	<b>Kv</b>	<b>HB</b>
16/8	980-1180	785	11	40		295-354
16/8 to 40/20	930-1130	735	11	40	35	278-339
40/20 to 100/60	880-1080	685	12	45	40	263-327
100/6 to 160/100	830-980	635	12	50	40	249-295
160/100 to 250/160	740-880	540	13	50	40	224-263
<b>Table of tempering values obtained at room temperature on rounds after quenching at 850°C in oil</b>						
<b>HB</b>	577	560	525	496	468	442
<b>HRC</b>	56	55	53	51	49	47
<b>R N/mm<sup>2</sup></b>	2160	2070	1950	1820	1700	1580
<b>Rp 0.2 N/mm<sup>2</sup></b>	1440	1520	1540	1520	1490	1440
<b>A%</b>	8	9.8	10.4	10.6	10.7	10.8
<b>C%</b>	30	42	48	52	53	53
<b>Kv J</b>	28	31	32	28	28	27
<b>Tempering at °C</b>	100	150	200	250	300	350