

Quality	X30Cr13
According to Standard	EN 10088-3:2005 (E)
Number	1.4028

Comparable Standards	EN	W.N.	AISI
	X30Cr13	1.4028	420F

Chemical Analysis	C %	Mn %	Si % max	P% max	Cr %	Ni %	Mo %
	0,26 to 0,35	≤ 1,50	1,00	0,040	12,0 to 14,0	—	—
	S%	Others					
	≤ 0,030 <sup>b</sup>	—					

### Hot Work and Heat Treatment Temperatures

Heat Treatment Symbol	Hot Forming		Annealing		Quenching		Tempering
	Temperature °C	Type of cooling	Temperature °C	Type of cooling	Temperature °C	Type of cooling	Temperature °C
+A	1100 to 800	slow cooling	745 to 825	air	—	—	—
+QT 650	1100 to 800	slow cooling	—	—	950 to 1050	oil, air	625 to 675

### Mechanical Properties at Room Temperature

Heat Treatment Condition	Ø mm.	Hardness HB <sup>c</sup> max	Rp0,2 <sup>d</sup> min. N/mm <sup>2</sup>	Rm <sup>d</sup> N/mm <sup>2</sup>	A <sup>d</sup> min. %	KV min. J
+A	—	245	—	max 800	—	—
+QT650	≤ 160	—	650	850 to 1000	10	15