



Grade	Code	AISI	Martensitic Stainless Steel
1.4034	X46Cr13	420C	

Steel Properties

Moderate corrosion resistance characterises the martensitic material 1.4034 as well as good wear resistance, which is ensured by the increased carbon content and the possibility of hardening. 1.4034 is therefore often used for cutting tools. The annealed version ensures good machinability of the bar steel. Components made from this material are typically subjected to further heat treatment.

Chemical Composition (1.4034)

C %	P %	Si %	Mn %	S %	Cr %	Mo %	Ni %	Al %	Cu %
0,43 – 0,50	0,04 max.	1,00 max.	1,00 max.	0,03 min.	12,50 – 14,50	-	-	-	-

Mechanical Properties (*Quenched and Tempered*)

Product Form	Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness [HRC]
Bar & Rod	≥ 650	800 - 1000	> 10	-

Suitable For

1.4034 is used in the production of cutting tools, bearings, pipes and protective sleeves, springs, screws, pistons, kitchen knives, industrial knives for machines, carburetor needles, surgical and measuring instruments.

And 1.4034 is also designed for the chemical, petrochemical, food, and machine industries, has sufficient corrosion resistance in the environment containing some organic acids, salts, water, alcohols, and liquid fuels.

Remarks

Tool, wear resistant stainless steel with martensitic structure for thermal improvement. After heat treatment has high hardness of about 52-54 HRC.

Specification

1.4034, AISI 420C, X46Cr13