

Code	X46Cr13
US standard (AISI)	420
Composition Alloy components [%]	<ul style="list-style-type: none"> ■ C: 0.43 - 0.50 ■ Cr: 12.50 - 14.50 ■ Mn: 0 - 1.00 ■ P: 0 - 0.04 ■ S: 0 - 0.015 (0.030*) ■ Si: 0 - 1.00 ■ Remainder: Fe
Stainless steel grade	C-
Density [g/cm ³]	7.7
Yield point Rp0.2 [N/mm ²]	≥600
Tensile strength Rm [N/mm ²]	≤800
Corrosion resistance	<ul style="list-style-type: none"> ■ Medium ■ Resistant in chloride-free media, weak lyes and acids ■ Susceptible to intergranular corrosion ■ Optimum resistance, tempered and polished
Machinability	poor
Weldability	poor
Other properties	<ul style="list-style-type: none"> ■ Nickel-free martensitic ferromagnetic structure ■ Can be hardened to HRC 55 (Rm: 1700-1900 N/mm²) ■ Can be mechanically polished to a high gloss ■ Suitability for electropolishing: medium
Main applications	<ul style="list-style-type: none"> ■ Table and rotary knives ■ Razors, scissors ■ Rolling bearings ■ Ice skates ■ Surgical instruments ■ Measuring tools ■ Products for the medical and pharmaceutical industry