

Injection Moulded Material Properties and Application Data

Material:	martensitic, stainless steel	
Grade	AISI 420, DIN X46Cr13, W.Nr. 1.4034	
Nominal Composition, %:	Cr	13
	Si	1.0 max.
	Mn	1.0 max.
	C	0.42-0.50
	Fe	Rest

Typical properties	as sintered + quenched	quenched + tempered
Density (g/cm ³)	7.60	7.60
Annealing temperature (°C)		200-100
Hardness, HV	600	550-580
Hardness, HRc	55	52-54
Elastic Modulus (GPa)	216	216
Elongation (%)	-	-
Tensile strength (MPa, N/mm ²)	(1990)	(1800-1900)
Yield strength (MPa, N/mm ²)	-	-
Surface roughness	R _a < 2	R _a < 2

Uses, remarks:

AISI 420 is applied for components which require high tensile strength and moderate corrosion resistance. AISI 420 has better mechanical properties than AISI 410 and AISI 14/4PH.