1.4034

X46Cr13	%C	%Si	%Mn	%P	%S	%Cr	%Cu	%Mo	%Nb	%Ni
	0.43	-	-	-	-	12.50	-	-	-	-
	0.50	1.00	1.00	0.040	0.030	14.50	-	-	-	-

STEEL PROPERTIES

1.4034 belongs to stainless steel martensitic family. Can achieve high hardenability along with good corrosion resistance. This grade is normally used in the quenched and tempered condition. It can also be induction hardened for linear guide applications.

EQUIVALENT GRADES

EN 10088-3	1.4034	X46Cr13
AFNOR	Z44C14	
GOST	40X13	
AISI	420C	
BS	420S45	

APPLICATIONS

1.4034 is typically used for cutting tools, roller bearings, blades, surgical instruments, linear guides, shafts for vales, shafts for pumps, shafts for e-mobility.

HEAT TREATMENT

1.4034 is supplied in annealed +A, quenched tempered +QT, spherodize annealed +AC conditions.

Mechanical Values for 1.4034 at room temperature in EN 10088-3: 2014 in conditions 1C, 1E, 1D, 1X, 1G, 2D

Diameter (mm)	Heat Treatment Condition	Hardness HB max.	0.2% Proof strength min.	Tensile Strength R_m Mpa	Elongation after fracture A % Min.		Impact Energy (ISO-V) KV J Min.	
					(long)	(tr.)	(long)	(tr.)
-	+A	245	-	Max 800	-	-	-	-
<= 160	+QT800		650	850 to 1000	10		12	

1.4034

Mechanical Values for 1.4034 Bright Bars at room temperature in EN 10088-3: 2014 in conditions 2H, 2B, 2G, 2P

Diameter (mm)	Annealed		Heat Treatment Condition	0.2% Proof strength min.	Tensile Strength R_m Mpa	A5 % Min Elongation		Impact Energy (ISO-V) KV J Min.	
	R_m Mpa Max	HB Max				(long)	(tr.)	(long)	(tr.)
=<10	950	305	+QT850	700	900 to 1150	7	-	-	-
10<t<=16	950	305	+QT850	700	900 to 1150	7	-	-	-
16<t<=40	900	280	+QT850	650	850 to 1100	8	-	12	-
40<t<=63	840	260	+QT850	650	850 to 1000	8	-	12	-
63<t<=160	800	245	+QT850	650	850 to 1000	10	-	12	-