

Quality	X22CrMoV12-1
According to Standard	EN 10269 : 2013 (E)
Number	1.4923



Comparable Standards	EN	W.N.
	X22CrMoV12-1	1.4923

Chemical Analysis	C %	Si % max	Mn %
	0.18 - 0.24	≤ 0.50	0.40 - 0.90
	B	Cr %	Mo %
	-	11.0 - 12.5	0.80 to 1.20
	P% max	S% max	Al _{tot}
	0.025	0.015 ^b	-
	Ni %	V %	Others
	0.30 - 0.80	0.25 - 0.35	-

Guidance for Heat Treatment

Heat Treatment Symbol ^a	Normalizing, quenching or Solution annealing temperature °C	Type of cooling ^b	Tempering or precipitation treatment (and time) ^c °C
+ QT1	1020 to 1070	a, o, w	680 to 740 (min. 2 h)
+ QT2	1020 to 1070	a, o, w	660 to 720 (min. 2 h)

Mechanical Properties at Room Temperature

Heat Treatment Condition ^a	Hardness	Diameter ^c	Proof Strength	Tensile strength
	HBW max	d mm	R _{p0.2} Mpa min.	R _m Mpa
+ QT1 + A	-	d ≤ 160	600	800 to 950
	302	-	-	-
	Elongation after fracture	Reduction in area	Impact energy(ISO-V)	
	A % min.	Z % min.	KV ₂ J min.	
	14	40	27	
	-	-	-	