

X210Cr12

W.Nr. 1.2080

Properties

cold working tool steel; high wear resistance; very good compression strength
enduse = cutting tools, stamping tools, deep drawing/pressing tools.

Chemical composition

C=1,90-2,20	Si=0,10-0,60	Mn=0,20-0,60	P=max.0,030	S=max.0,030
Cr=11,00-13,00				

DIN EN ISO 4957

Grade equivalents Similar grades

BD3	-----	Z200C12	SKD 1	19436
BS	GB	AFNOR	JIS	CSN
D3	X205Cr12KU	-----	CH12	F.5212
AISI / SAE	UNI	SS	GOST	UNE

General conditions

Heat treatment =+A DIN EN ISO 4957

Hardness max. 248 HB

Surface surface flaws / cracks if any are removed by polishing.
cleaning marks/scale pitting/peripheral decarburisation within
the standard machining allowance is allowed.

US test SEP 1921 group 3, class C/c or
EN 10228-3 quality grade 2, 100% scanning or
specific FBH eq.

Degree of Purity DIN 50 602, K4 max. 30

Microstructure Carbide distribution as per Böhler classification Chart
AL011DE10.91 edition 1984, aiming max. acceptable figures:
diamter / thickness : up to 100 mm 3.3 ; 2.4 ; 1.4
100 - 250 mm 3.4 ; 1.5
251 - 400 mm 4.3 ; 3.5 ; 2.6

Hot rolled and/or forged, peeled and/or turned

Ø 10 – 503 mm

Tolerances - 0 / + 0,8 - 4,0 mm (dep. on dia) or specific tol.
Lengths 2,5 - 5,5 m or specific lengths ends of bars are sawn

Hot rolled, black and/or Hot rolled all sides machined

10 - 105 x
20 - 610 mm

Tolerances EN 10058 positiv allowance only or
DIN 50602 positiv allowance only or
specific tol.
Lengths 2,5 - 5,5 m or specific lengths ends of bars are sawn

Hot rolled and/or forged, black Hot rolled and/or forged, all sides machined

10 x 10 -
300 x 300 mm

Tolerances EN 10059 positiv allowance only or
DIN 7527 / 6 positiv allowance only or
specific tol.
Lengths 2,5 - 5,5 m or specific lengths ends of bars are sawn

Forged, black and/or forged all side machined

100 - 250 x
120 - 600 mm

Tolerances DIN 7527 / 6 positiv allowance only or
specific tol. positiv allowance only
Lengths 2,5 - 5,5 m or specific lengths ends of bars are sawn

Test certificate

EN 10204/3.1 with chem. Analysis; hardness HB ; heat treatment ; US test
(copy of original on our letter head !)

- supply range file - issued: 20.02.2009 rev. 1