

# X153CrMoV12

W.Nr. 1.2379

## Properties

cold working tool steel; good toughness ; very good compression strength  
enduse = shearing knives; hobbing tools; deep drawing tools; extrusion dies

## Chemical composition

C=1,45-1,60	Si=0,10-0,60	Mn=0,20-0,60	P=max.0,030	S=max.0,030
Cr=11,00-13,00	Mo=0,70-1,00	V=0,70-1,00		

DIN EN ISO 4957

## Grade equivalents Similar grades

BD2 BS	----- GB	Z160CDV12 AFNOR	SKD 11 JIS	19573 CSN
D2 AISI / SAE	X155CrVMo121 KU UNI	2310 SS	----- GOST	F.520 A UNE

## General conditions

Heat treatment =+A DIN EN ISO 4957

Hardness max. 250 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 – 603 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 -  
355 x 355 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 - 350 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