

# 40CrMnMo7

W.Nr. 1.2311

## Properties

mould steel, quenched and tempered  
enduse = moulds for plastic, mould frames for plastic and die casting moulds

## Chemical composition

<b>C=0,35-0,45</b>	<b>Si=0,20-0,40</b>	<b>Mn=1,30-1,60</b>	<b>P=max.0,025</b>	<b>S=max.0,010</b>
<b>Cr=1,80-2,10</b>	<b>Mo=0,15-0,25</b>			

DIN EN ISO 4957

## Grade equivalents Similar grades

----- <b>BS</b> P20 AISI / SAE	----- <b>GB</b> ----- UNI	----- <b>AFNOR</b> ----- SS	----- <b>JIS</b> ----- GOST	<b>19520</b> <b>CSN</b> ----- UNE
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## General conditions

**Heat treatment** =+QT DIN EN ISO 4957

**Hardness** 280 - 325 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 E/e or  
EN 10228-3 quality grade 4, 100% scanning or  
specific FBH eq.

**Degree of Purity** DIN 50 602, K4 max. 20

**Microstructure** quenched and tempered / fine - even structure

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

Ø 10 – 403 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 and/or forged, black Hot rolled and/or forged, all sides machined

20 x 20 -  
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

105 - 405 x  
120 - 1.500 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