

# 45NiCrMo16

W.Nr. 1.2767

## Properties

**tool steel - very good toughness, good hardenability**  
enduse = tools for heavy cold forming, hobbing; shearing blades;  
moulds ( plastic - compression - injection )

## Chemical composition

<b>C=0,40-0,50</b>	<b>Si=0,10-0,40</b>	<b>Mn=0,20-0,50</b>	<b>P=max.0,025</b>	<b>S=max.0,010</b>
<b>Cr=1,20-1,50</b>	<b>Mo=0,15-0,35</b>	<b>Ni=3,80-4,30</b>		

**DIN EN ISO 4957**

## Grade equivalents Similar grades

----- <b>BS</b>	----- <b>GB</b>	----- <b>AFNOR</b>	<b>SKT 6</b> <b>JIS</b>	----- <b>CSN</b>
----- <b>AISI / SAE</b>	----- <b>UNI</b>	----- <b>SS</b>	----- <b>GOST</b>	----- <b>UNE</b>

## General conditions

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

**Hardness** max. 285 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 D/d or  
EN 10228-3 quality grade 3, 100% scanning or  
specific FBH eq.

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

**Microstructue** soft annealed struture

## 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

20 - 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

20 x 20 -  
205 x 205

**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 - 455 x  
120 - 1.250 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 ! )

## Remarks :

also available in ESR !

- supply range file - issued: 20.02.2009 rev. 1