

Quality

C15E

According to Standard

EN 10084 : 2008

Number

1.1141



Comparable Standards

German  
DINFrance  
AFNORSpain  
UNEChina  
GBU.K.  
B.S.Russia  
GOSTUSA  
AISI - SAEJapan  
JIS

Ck15

XC15

F1511

15

080M15

15

1015

S15C

Chemical Analysis

C%  
maxSi%  
maxMn%  
maxP%  
maxS%  
maxN%  
maxCu%  
max

0.12 - 0.18

0.4

0.30 - 0.50

0.035

0.020 - 0.040

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**Hot Work and Heat Treatment Temperatures**

Temperature °C

Hot - Forming	Core Hardening	Soft Annealing +A	Isothermal Annealing +I	Normalising & Tempering	Quenching & Tempering QT	Stress-relieving +SR after welding
1150 - 850	880 - 920 Water	690 air	930 furnace cooling to 650, then air (HB 115 - 145)	890 - 920 air	780 - 820	Welding must be carried out on the annealed state & before carburizing
		(HB max 143)		(HB 95 - 150)	water	

**Mechanical Properties at Room Temperature****Brinell Hardness in the condition**

Steel Designation	Name	Number	+S max	+A max	+TH min max		+FP min. max.	
C15E		1.1141	-	143	-	-	-	-