

Quality

52SiCrNi5

According to Standard

EN 10089 : 2002

Number

1.7117



Comparable Standards

German  
DIN

France

AFNOR

Spain  
UNEChina  
GBU.K.  
B.S.Russia  
GOSTUSA  
AISI - SAEJapan  
JIS

52SiCrNi5

52SiCrNi5

-

ZG50CrMo

-

52XHC

-

-

Chemical Analysis

C%  
max

Si%

max

Mn%  
maxP%  
maxS%  
max

Cr%

Ni%

0.49 - 0.56

1.20 - 1.50

0.70 - 1.00

0.025

0.025

0.70 - 1.00

0.50 - 0.70

**Hot Work and Heat Treatment Temperatures****Temperature °C**

Hot - Forming	Supply State +U	Soft Annealing +A	End Quench Hardenebility test	Normalising	Quenching	Hot Moulding	Tempering	Stress-relieving +SR
1100 - 900	(HB max 310)	680 air	850	870 air	840 - 870	920 - 830	400 - 450	
		(HB max 248)	water		oil or polymer		air	

**Mechanical Properties at Room Temperature****Hot Rolled Mechanical Properties after Quenched at 860°C in oil & Tempering at 450°C air EN 10089 - 2002**

Size d/t mm		Testing at Room Temperature (Longitudinal)						
From	To	R	Rp 0.2	A%	C%	KU	HB	HRC
		N/mm2	N/mm2	min.	min.	J min.	for info	
	10	1450 - 1750	1300	6	35	10	409 - 482	44 - 50

**EN 10089 : 2002 Jominy test HRC grain size 5 min. distance in mm from quenched end**

Symbol H	1.5	3	5	7	9	11	13	15	20	25	30
min	56	56	55	55	54	53	52	51	47	42	38
max	63	63	63	62	62	62	61	61	60	59	57