

Quality 20CrMo5

According to Standard Werkstoff

Number 1.7264



Comparable Standards German DIN France AFNOR Spain UNE China GB U.K. B.S. Russia GOST USA AISI - SAE Japan JIS

20CrMnMo SCM 421

Chemical Analysis C% max Si% max Mn% max P% max S% max Ni% max Cr% max Mo%
 0.18 - 0.23 0.15 - 0.35 0.90 - 1.20 0.035 0.035 1.10 - 1.40 0.20 - 0.30

Hot Work and Heat Treatment Temperatures

Temperature °C

Hot - Forming	Core Hardening	Soft Annealing +A	Isothermal Annealing +I	Carburizing	Hardening Carburizing surf.	Stress-relieving +SR after welding
1050 - 850	850 water , oil , polymer	680 - 700 cooling 15°C/h to 600		860 - 900	810 - 830 oil -	Welding must be carried out on the annealed state & before carburizing
	(HRC 45)	then air (HB max 217)		oil , polymer , sb	polymer salt bath	

Mechanical Properties at Room Temperature

Hot Rolled mechanical properties after case hardening in core

size mm		Testing at room temperature (Longitudinal)								
from	to	R N/mm2	Rp 0.2 %mm2 min	A% min.	C% min.	Kv J min.	HB			
	11	1080 - 1370	735	7	30	24	327 - 394	for info only		
	30	980 - 1270	685	8	35	24	295 - 373	for info only		
	63	780 - 1080	540	10	35		232 - 327			