



QUALITY	42CrMo4 - 42CrMoS4	W. NR. 1.7225-1.7227
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REFERENCE NORM HOT ROLLED STEEL PRODUCTS	ISO 683-2
REFERENCE NORM BRIGHT STEEL PRODUCTS	UNI EN 10277

CHEMICAL COMPOSITION (%)

	C	Si	Mn	P (max.)	S (max)	Cr (max)	Mo (max)	Cu (max)
42CrMo4	0,38 ÷ 0,45	0,10 ÷ 0,40	0,60 ÷ 0,90	0,025	0,035	0,90 ÷ 1,20	0,15 ÷ 0,30	0,40
42CrMoS4					0,020 ÷ 0,040			

MECHANICAL PROPERTIES HOT ROLLED QUENCHED & TEMPERED STEEL (ISO 683-2)

Size (mm)	ReH (MPa) Min.	Rm (MPa)	A% Min.	Z% Min	KV Min (J) Amb.
d ≤ 16mm	900	1100 + 1300	10	40	
t ≤ 8mm					
16mm < d ≤ 40mm	750	1000 + 1200	11	45	35
8mm < t ≤ 20mm					
40mm < d ≤ 100mm	650	900 + 1100	12	50	35
20mm < t ≤ 60mm					
100mm < d ≤ 160mm	550	800 + 950	13	50	35
60mm < t ≤ 100mm					
160mm < d ≤ 250mm	500	750 + 900	14	55	35
100mm < t ≤ 160mm					

MECHANICAL PROPERTIES BRIGHT STEEL PRODUCTS (UNI EN 10277)

Size (mm)	(+A+SH) ANNEALED + PEELED	(+A +C) ANNEALED + COLD DRAWN	(+QT+SH) QUENCHED & TEMPERED + PEELED				(+QT+C) QUENCHED & TEMPERED + COLD DRAWN		
	Hardness (HBW) Max.	Durezza (HBW) Max.	Rp0,2 (MPa) Min.	Rm (MPa)	A5 (%) min.	KV Min (J) Amb	Rp0,2 (MPa) Min.	Rm (MPa)	A5 (%) min.
5 ≤ t ≤ 10		300					770	1000 + 1200	8
10 < t ≤ 16		290					750	1000 + 1200	8
16 < t ≤ 40	241	285	750	1000 + 1200	11	35	720	1000 + 1200	9
40 < t ≤ 63	241	280	650	900 + 1100	12	35	650	900 + 1100	10
63 < t ≤ 100	241	280	650	900 + 1100	12	35	650	900 + 1100	10

Jominy test values HRC (ISO 683-1)

Distance from ends mm	1,5	3	5	7	9	11	13	15	20	25	30
MAX	61	61	61	60	60	59	59	58	56	53	51
MIN	53	53	52	51	49	43	40	37	34	32	31

Distance from ends mm	35	40	45	50
MAX	48	47	46	45
MIN	30	30	29	29

Indicative values based on current regulations.