

16MnCr5 1.7131 - 16MnCrS5 1.7139 EN ISO 683-7:24					<i>Lucefin Group</i>	
size mm		Soft annealing +A+SH Peeled, Ground +G	Soft annealing +A+C Cold-drawn	Heat treatment +FP+SH, +G for pearlite / ferrite structure Peeled, Ground	Heat treatment +FP+C for pearlite / ferrite structure Cold-drawn	
from	to	HBW max	HBW max	HBW	HBW ^{b)}	
5 ^{a)}	10	-	260	-	-	
10	16	-	250	-	-	
16	40	207	245	140-187	140-240	
40	63	207	240	140-187	140-235	
63	100	207	240	140-187	140-235	

^{a)} for thickness < 5 mm, hardness values should be agreed before order placement

^{b)} te hardness values for flats may deviate by ± 10%

18MnCr5 Forged UNI 8550: 1984. Use only as reference						
size mm		Testing at room temperature				
from	to	R N/mm ²	Rp 0.2 N/mm ² min	A% min (L)	Kcu J min (L)	HB <i>for inform.</i>
	11	1030-1375	735	8	25	311-395
11	25	785-1080	540	9	30	234-327
25	50	685-930	490	10	30	209-278

Mechanical properties obtained on test blanks after core hardening + stress-relieving
L = longitudinal

ISO 683-3: 2018 Jominy test HRC grain size G 5 min.																
mm distance from quenched end																
	1.5	3	5	7	9	11	13	15	20	25	30	35	40	45	50	H
min	39	36	31	28	24	21	-	-	-	-	-	-	-	-	-	
max	47	46	44	41	39	37	35	33	31	30	29	28	27			
min	42	39	35	32	29	26	24	22	20							HH
max	47	46	44	41	39	37	35	33	31	30	29	28	27			
min	39	36	31	28	24	21	-	-	-	-	-	-	-	-	-	HL
max	44	43	40	37	34	32	30	28	26	25	24	23	22			

Thermal Expansion	10 ⁻⁶ •K ⁻¹	▶	11.1	12.1	12.9	13.5	13.9
Mod. of Elasticity long.	GPa		210				
Mod. of Elasticity tang.	GPa		80				
Specific Heat Capacity	J/(Kg•K)		460				
Thermal Conductivity	W/(m•K)		41				
Density	Kg/dm ³		7.85				
Specific Electric Resist.	Ohm•mm ² /m		0.16				
Electrical Conductivity	Siemens•m/mm ²		6.25				
°C			20	100	200	300	400 500

The symbol ▶ indicates temperature between 20 °C and 100 °C, 20 °C and 200 °C ...

EUROPE	ITALY	CHINA	GERMANY	FRANCE	U.K.	RUSSIA	USA
EN	UNI	GB	DIN	AFNOR	B.S.	GOST	AISI/SAE
16MnCr5	16MnCr5	15CrMn	16MnCr5	16MC		16HG	5115



Structure of hot-rolled annealed steel (+A)
and subsequently cold-drawn (+C)

x1000