

Quality	C20				Structural Steel	<i>Technical card</i>	
According to standard	UNI 7874: 1979. Use only as reference					Lucefin Group	
Number	(1.1151)					rev. 2018	
Chemical composition							
C%	Si%	Mn%	P%	S%			Product deviations are allowed
			max	max			
0,18-0,24	0,15-0,40	0,40-0,80	0,035	0,035			
± 0.02	± 0.03	± 0.04	+ 0.005	+ 0.005			
Ac1 725 °C, Ac3 845 °C, Ar3 815 °C, Ar1 680 °C							
Mechanical properties for information only							
Hot-rolled normalized +N				Cold-draw +C			
R	ReH	A%		R	ReH	A%	
N/mm ²	N/mm ² min	min		N/mm ² min	N/mm ² min	min	
450-550	245	25		540	390	8	
Hot-rolled natural condition max HB 160							
Hot-rolled annealed +A R max 540 N/mm ²							
Table of tempering values obtained at room temperature on round of Ø 30 mm after quenching at 950 °C in water							
HB	353	353	344	327	286	226	162
HRC	38	38	37	35	30	20	--
R N/mm ²	1180	1180	1140	1080	950	760	560
Rinv. °C	50	100	150	200	300	450	600
Effective depth of case-hardened layer							
Depth	mm	0.12	0.24	0.30	0.45	0.50	0.60
HRC		-	-	50	-	-	-
Time of case-hardening	h.	1	2	4	6	8	10
USA	ITALY	CHINA	GERMANY	FRANCE	U.K.	RUSSIA	EUROPE
AISI/SAE	UNI	GB	DIN	AFNOR	B.S.	GOST	EN
1020	C20	20	C22	C20	070M20	20A	C22