

20MnCr5

Chromium-Manganese Case-Hardening Steel

W.-Nr. 1.7147

AISI/SAE 5120

EN 10084

Delivery +A, +TH

Density 7.85 g/cm³

CHEMICAL COMPOSITION

ELEMENT	WEIGHT %
C	0.17–0.22
Si	≤ 0.40
Mn	1.10–1.40
P	≤ 0.025
S	≤ 0.035
Cr	1.00–1.30

MECHANICAL PROPERTIES (KÖR SERTLEŞTİRİLMİŞ
(ÇEKİRDEK) / BLANK-HARDENED CORE)

SECTION (MM)	R _{EH} MIN MPA	R _M MPA	A MIN %
d ≤ 11	850	1100–1400	7
11 < d ≤ 30	700	980–1280	8
30 < d ≤ 63	550	780–1080	9

INTERNATIONAL EQUIVALENTS

EN	20MnCr5	JIS	≈ SCr420 / SMnC420
W.-Nr. (DIN)	1.7147	GOST	≈ 18XГТ (18KhGT)
AISI/SAE	5120	BS (UK)	≈ 590M17
ASTM	A29 (5120)	GB (China)	≈ 20CrMnTi

TYPICAL APPLICATIONS

- Heavy-duty transmission and gearbox gears
- Differential gears
- Large-section gear wheels and pinions
- Heavy machinery drivetrain parts
- Camshafts and drive shafts
- Carburized bushings and pins

Values are given per the relevant standard and are for information only; they do not replace the order specification. They may vary with section size, delivery condition and heat treatment. Binding values are those of the order confirmation and inspection document (EN 10204 3.1).

Quotation and stock

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