



WINTRADE S.r.l.
CHROME PLATED BARS • STEEL TUBES • SPECIAL STEELS

20MnV6

Induction hardened
chromed bar

According to EN 10088

Corrosion Resistance

ISO 9227 NSS Rating 9 ≥ 120 h

Chemical analysis

C	Mn	Si	P	S	Cr	V	Ni
0,16±0,22	1,30±1,70	0,10±0,50	≤0,035	≤0,035	-	0,08±0,20	-

Mechanical properties at room temperature

Base material	Diameter Ø mm.	Rp0,2 min. N/mm ²	Rm min. N/mm ²	A min. %	AvRT J	HB
Cold drawn	6 < Ø ≤ 25	620	700	10	-	213 ÷ 260
Hot rolled + Peeled+SH	19 < Ø ≤ 80	460	600	18	-	159 ÷ 172
Hot rolled + Peeled+SH	80 < Ø ≤ 160	420	550	18	-	159 ÷ 172

Tolerance: ISO f7

Diameter range: diam. 6 - 160 mm

Surface roughness: Ra - max. 0,20 µm (statistical average 0,05 – 0,15 µm)

Chromium thickness: Ø < 20 mm = min. 15 µm Ø ≥ 20 mm = min. 20 µm

Chromium hardness: min. 900 HV

Induction Hardness: 45±3 HRC

Hardening Depth: 0,5 - 4 mm according diameter

General properties and applications

20MnV6 induction hardened chromed bar is made with a treatment where the chromed bar is heated by induction heating and then quenched.

This heat treatment is used to increase the hardness and brittleness of the 20MnV6 chromed bar.

This material is perfect for piston rods of standard hydraulic cylinders that need an excellent machinability and weldability.

It's recommended by our technical department at low temperature environments.