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

C45E (CK45)

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	Mo	Ni
	0,42÷0,50	0,50÷0,80	≤0,40	≤0,030	≤0,035	≤0,40	≤0,10	≤0,40

Mechanical properties at room temperature

Base material	Diameter Ø mm.	Rp0,2 min. N/mm²	Rm N/mm²	A min. %	AvRT J	HB max
Cold drawn	≤10	565	750÷1050	5	-	225÷319
Cold drawn	10<Ø≤16	500	710÷1030	6	-	218÷311
Hot rolled + Peeled+ SH	16<Ø≤100	305	580÷ -	16	-	172÷ -
Hot rolled + Peeled+ SH	100<Ø≤250	275	560÷ -	16	-	162÷ -

Tolerance: *ISO f7*

Diameter range: diam. 2 - 1000 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 Hardeness: 58±3 HRC

Hardening Depth: 0,5 - 4 mm according diameter

General properties and applications

CK45 Induction hardened chromed bar is used by the hydraulic industries extensively.
It is employed by other industrial sectors for a wide range of applications, like hydraulic presses.
Typical applications are: agricultural equipment, compressors, car jacks and other transport lifting equipment, processing equipment, hoists, mining and other earth moving equipment, machine tools, mechanical tools and equipment, rods and shafts (various), waste disposal transport and equipment etc.