

STAR CBC Chrome Plated Steels Bar
 DIAMETER 5 - 130 mm

STEEL GRADES

Steel Grade	DIN	B.S	UNI	JIS	GOST	ASI/SAE/ASTM	Werkstoff
42CrMo4	42CrMo4	708M40	42CrMo4	SCM440(H)	40ChFA	4140	1,7225

CHEMICAL COMPOSITION - IN % BY WEIGHT

Steel Grade	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	N
42CrMo4	0.38-0.45	0.10-0.40	0.60-0.90	≤0.025	≤0.035	0.9-1.2	0.15-0.30	-	≤0.40	-	-

MECHANICAL PROPERTIES

Steel Grade	Diameter	Tensile Strength N/mm ²	Yield Strength N/mm ²	Elongation A%	Impact Energy J/Min.	Hardness Brinell N/mm ²	Norm	Tristar Steel Product Code
42CrMo4+QT	18\varnothing≤40	1000-1200	Min. 750	Min. 11	35J / 20°C	298-359	EN ISO683-2	STAR CBC
	40\varnothing≤100	900-1100	Min. 650	Min. 12	35J / 20°C	271-331	EN ISO683-2	
	100\varnothing≤130	800-950	Min. 550	Min. 13	35J / 20°C	240-290	EN ISO683-2	

STRAIGHTNESS

6 ≤ \varnothing ≤ 10mm: Max. 0.3 mm/1000 mm
 12 ≤ \varnothing ≤ 18mm: Max. 0.25 mm/1000 mm
 20 ≤ \varnothing ≤ 130 mm: Max. 0.20 mm/1000 mm

ROUNDNESS

Max. 1/2 from Dia. Tolerance

CHROME LAYER THICKNESS

\varnothing < 20 mm: min. 15 μ m
 \varnothing ≥ 20 mm: min. 20 μ m

STANDARD LENGTH

5800 - 7500 mm
 (Available on request)

SURFACE ROUGHNESS

Ra: max. 0.15 μ m; Rt: max. 1.2 μ m

CHROME LAYER MICROHARDNESS

900 HV0.1

TOLERANCE

f7, other on request

CORROSION RESISTANCE

Neutral salt spray test according to ISO 9227 -
 Evaluation according to ISO 10289 :

RATING 10 (NO RUST)

\varnothing < 20 mm: 144 hours min.
 \varnothing ≥ 20 mm: 200 hours min.