

STAR **CB** **Chrome Plated Steels Bar**
 DIAMETER 5 - 130 mm

Steel Grade	DIN	B.S	UNI	JIS	GOST	ASI/SAE/ASTM	Werkstoff
C45E	Ck45	080M46	C45	S45C	45	1045	1,1191
C35E	Ck35	080M36	C35	S35C	35	1035	1,1181

Steel Grade	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	N
C45E	0.42-0.50	max. 0.40	0.50-0.80	≤0.030	≤0.035	≤0.40	≤0.10	≤0.40	≤0.30	-	-
C35E	0.32-0.39	0.10-0.40	0.50-0.80	≤0.025	≤0.035	≤0.40	≤0.10	≤0.40	≤0.30	-	-

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
C45E	6<Ø≤10	750-1050	Min. 520	Min. 5	-	225-320	EN 10277	STAR CB
	10<Ø≤16	710-1030	Min. 520	Min. 6	-	210-315	EN 10277	
	16<Ø≤25	650-1000	Min. 520	Min. 7	-	200-298	EN 10277	
	25<Ø≤100	Min. 580	Min. 305	Min. 16	-	172-242	EN ISO683-1	
	100<Ø≤130	Min. 560	Min. 275	Min. 16	-	172-242	EN ISO683-1	
C45E+QT	25≤Ø≤40	650-800	Min. 430	Min. 16	15J / 20°C	190-235	EN ISO683-1	STAR CBY
	40<Ø≤90	630-780	Min. 370	Min. 17	15J / 20°C	185-230	EN ISO683-1	
C35E	6<Ø≤10	650-1000	Min. 510	Min. 6	-	190-298	EN 10277	STAR CBX
	10<Ø≤16	600-950	Min. 420	Min. 7	-	180-285	EN 10277	
	16<Ø≤25	580-880	Min. 320	Min. 8	-	172-263	EN 10277	
	25<Ø≤100	Min.520	Min. 270	Min. 19	-	154-207	EN ISO683-1	
	100<Ø≤130	Min.500	Min. 245	Min. 19	-	154-207	EN ISO683-1	

STRAIGHTNESS

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

ROUNDNESS

Max. ½ from Dia. Tolerance

CHROME LAYER THICKNESS

Ø < 20 mm: min. 15 µm
 Ø ≥ 20 mm: min. 20 µm

STANDARD LENGTH

5800-7500
 (Available on request)

SURFACE ROUGHNESS

Ra: max. 0.15 µm; Rt: max. 1.2 µm

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)

Ø < 20 mm: 144 hours min.
 Ø ≥ 20 mm: 200 hours min.