



# Datasheet of product

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## Product information

Product: Chrome Plated Rod  
 Standard: EN 10083-1/2, EN10277, ISO F7, DIN 1.1191, DIN1013  
 Manufacturing processes: Straightening, peeling, grinding, induction hardening and chrome plating

## Material designation

Material standard	Europe	Germany		USA	France	Italy	Grait Britain	Sweden	Japan
	EN	DIN	WR	AISI/SAE/ASTM	AFNOR	UNI	BS	SS	JIS
CK45	C45E	Ck45	1.1191	1045	XC42	C45	080M46	1672	S45C
42CrMo4	42Crmo4	42CrMo4	1.7225	4140	42CD4	42CrMo4	708M40	2244	SCM440(H)

## Chemical composition

Material	%C	%Cr	%Mn	%Si	%P	%S	%Cu	%Ni	%Mo	%Sn
CK45	0.42-0.50	≤0.4	0.50-0.80	≤0.4	≤0.03	≤0.035	≤0.30	≤0.4	≤0.1	≤0.06
42CrMo4	0.38-0.45	0.90-1.2	0.60-0.90	≤0.4	≤0.025	≤0.035	≤0.30	-	0.15-0.30	-

## Mechanical properties

Material	Diameter	Tensile strength	Yield strength	elongation	Hardness Brinell	Norm
	mm	N/mm <sup>2</sup>	N/mm <sup>2</sup>	%	N/mm <sup>2</sup>	-
CK45	25≤φ<40	Min. 650	Min. 410	Min. 7	200 – 298	
	40≤φ≤100	Min. 580	Min. 305	Min. 16	172 - 242	EN 10083-2

## Product detail

Surface roughness: Ra max. 0.2µm.  
 Straightness: Max. 0.3/1000mm  
 Roundness: within ½ of ISO tolerance  
 Standard length: 5000 – 6000 mm, any other length could be delivered upon request  
 Chrome layer thickness: min. 20µm  
 Chrome layer hardness: 50 – 60 HRC  
 Corrosion resistance: min. 120 – 200 hours in Neutral Salt Spray testing according to ISO 9227

## Diameters and tolerances

Diameter	Tolerances according to ISO F7 µm	Cross-Sectional area (Cm <sup>2</sup> /m)	Weight (Kg/m)	Surface area (Cm <sup>2</sup> /m)
25	-41/-20	4.91	3.85	785
30	-41/-20	7.07	5.55	942
35	-50/-25	9.62	7.55	1100
40	-50/-25	12.6	9.86	1260
45	-50/-25	15.9	12.5	1410
50	-50/-25	19.6	15.4	1570
55	-60/-30	23.8	18.7	1730
60	-60/-30	28.3	22.2	1880
65	-60/-30	33.2	26.0	2040
70	-60/-30	38.5	30.2	2200
80	-60/-30	50.3	39.5	2510
90	-71/-36	63.6	49.9	2830
100	-71/-36	78.5	61.7	3140

## Pictures

