

Piston Rod material with

- Good hardening properties
- Excellent corrosion resistance

Selected for use in High Quality Hydraulic and Pneumatic applications where more durable Induction Hardened materials are required.

Chemical Analysis:

Designation	C	SI	MN	P	S	CR	Mo
42CrMo4QT	0.38	Max.	0.60	Max.	Max.	0.90	0.15
	0.45	0.40	0.90	0.035	0.03	1.20	0.30

Specification to EN 10083

Mechanical Properties:

Diameter Ø mm	Re N/mm ²	Rm N/mm ²	A %	Z %
12 – 41	= > 750	900 – 1050	= > 11	= > 45
> 41 – 101	= > 690	860 – 1030	= > 12	= > 50
> 101 – 160	= > 620	800 – 965	= > 13	= > 50
> 160 - 300	= > 500	750 – 900	= > 14	= > 55

Density: 785 kg / m³

Roundness: ½ Diameter tolerance

Surface:

Polished, surface roughness Ra <= 0,30µm

Straightness: <Ø20mm= < 0.20mm/m
(TIR max. 0.40 mm/m)

Ø20mm = 0.10 mm/m
(TIR 0.20 mm/m)

Chrome Thickness: 20 ± 5 µm
Chrome Hardness: = > 800 HV

Induction hardened:
Surface Hardness 56 – 64 HRC

Non Standard Sizes

Other hardness depths and diameter tolerances are available. Please contact us for detailed information, dimensions and minimum order quantities.

Standard Diameters

Standard Ø in mm	Tolerance f7 (µm)	Production Length* in mm
12		3000
14	- 16	3000
16	- 34	6000
18		6000
20		6000
22	- 20	
25	- 41	7600
28		
30		
32		
35		
36	- 25	7600
40	- 50	
45		
50		
56		
60		
63	- 30	7600
70	- 60	
75		
80		
90	- 36	7600
100	- 71	7000
110		6800

*At each end up to 250mm length of a production bar may not be fully chrome plated and within tolerance. When providing material for stock this material may amount to 10%, we do not invoice this material.

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