

Material Data Sheet X46 Cr13 1.4034

Stainless Guide material with:

- Good hardening properties
- Excellent Ground Finish
- At medium level Corrosion resistance

Selected for use in High Quality Linear Bearing Guide-way systems where Induction Hardened, Corrosion Resistant materials are required.

// Chemical Analysis %

Material	C	Si	Mn	P	S	Cr
X46 Cr13	0,43	<=	<=	<=	<=	12,5
	0,50	1,0	1,0	0,04	0,03	14,5

Specification to DIN EN 10088-3

// Mechanical Properties

This material has no standard yield or tensile strength values. Test certification can be provided at cost.

The material is magnetic and not weldable.

Density: 7,7 kg/dm³

Roundness: ½ Diameter tolerancez

Surface: Polished, surface finish Ra < = 0,30 µm

Straightness: < Ø 10
 < 0,30 mm/m (TIR max. 0,60 mm/m)
 = > Ø 10 - < Ø 20 mm
 0,20 mm/m (TIR max. 0,40 mm/m)
 = > Ø 20 - Ø 50 mm
 0,10 mm/m (TIR max. 0,20 mm/m)

Induction hardened: Surface Hardness 52 – 58 HRC

Diameter (mm)	Depth of Hardness Rht 450 HV1 DIN EN 10328
4 - 6	> = 0,60 mm
> 6 - 8	0,80 mm + 0,50 mm
> 8 - 18	1,00 mm + 1,00 mm
> 18 - 28	1,50 mm + 1,00 mm
> 28 - 80	2,00 mm + 2,00 mm

// Standard Diameters

Standard Ø (mm)	Tolerance (µm)		* Production Length (mm)
	h 6	h 7	
4	0 - 6	0 - 12	3.600
5	0 - 8	0 - 12	
6			
8	0 - 9	0 - 15	6.100
10			3.600
12			
16	0 - 11	0 - 18	6.100
20			
25	0 - 13	0 - 21	
30			
40			
50	0 - 16	0 - 25	
60			
80	0 - 19	0 - 30	

* When ordering stock, as opposed to fixed length bars, please be aware that up to 10% of the delivery may be out of tolerance. Stock bars do not have their ends cut which means that up to 75 mm of each end may not be fully hardened and up to 150 mm of each end may not be within geometrical tolerance. Length tolerance ± 100 mm.

Specials:

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

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