
INTERNATIONAL STANDARD

ISO 2339-1986 (E)

Taper pins, unhardened

1 Scope and field of application

This International Standard specifies the characteristics of unhardened taper pins, with metric dimensions and nominal diameters, d , from 0,6 to 50 mm inclusive.

2 References

ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

ISO 3269, *Fasteners — Acceptance inspection.*

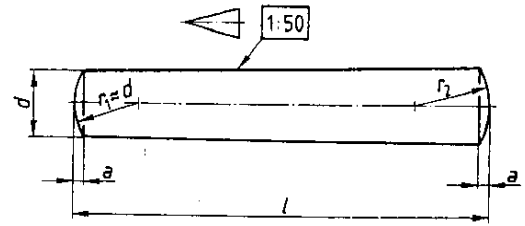
ISO 4520, *Chromate conversion coatings on electroplated zinc and cadmium coatings.*

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3 Dimensions

Type A (ground pins) : Surface finish $R_a = 0,8 \mu\text{m}$

Type B (turned pins) : Surface finish $R_a = 3,2 \mu\text{m}$



$$r_1 = \frac{a}{2} + d + \frac{(0,02l)^2}{8a}$$

Dimensions in millimetres

d	h10 ¹⁾		0,6	0,8	1	1,2	1,5	2	2,5	3	4	5	6	8	10	12	16	20	25	30	40	50	
a	≈		0,08	0,1	0,12	0,16	0,2	0,25	0,3	0,4	0,5	0,63	0,8	1	1,2	1,6	2	2,5	3	4	5	6,3	
nom.	f ²⁾																						
	min.	max.																					
2	1,75	2,25																					
3	2,75	3,25																					
4	3,75	4,25																					
5	4,75	5,25																					
6	5,75	6,25																					
8	7,75	8,25																					
10	9,75	10,25																					
12	11,5	12,5																					
14	13,5	14,5																					
16	15,5	16,5																					
18	17,5	18,5																					
20	19,5	20,5																					
22	21,5	22,5																					
24	23,5	24,5																					
26	25,5	26,5																					
28	27,5	28,5																					
30	29,5	30,5																					
32	31,5	32,5																					
35	34,5	35,5																					
40	39,5	40,5																					
45	44,5	45,5																					
50	49,5	50,5																					
55	54,25	55,75																					
60	59,25	60,75																					
65	64,25	65,75																					
70	69,25	70,75																					
75	74,25	75,75																					
80	79,25	80,75																					
85	84,25	85,75																					
90	89,25	90,75																					
95	94,25	95,75																					
100	99,25	100,75																					
120	119,25	120,75																					
140	139,25	140,75																					
160	159,25	160,75																					
180	179,25	180,75																					
200	199,25	200,75																					

1) Other tolerances, for example, a11, c11, f8, as agreed between customer and supplier.
 2) For nominal lengths above 200 mm, steps of 20 mm.

4 Specifications and reference International Standards

Material	St = Free-cutting steel, hardness 125 to 245 HV. Other materials as agreed between customer and supplier.
Surface finish	Plain, i.e. pins to be supplied in natural finish treated with a rust-preventative lubricant, unless otherwise specified by agreement between customer and supplier.
	Preferred coatings are black oxide, phosphate coating or zinc plating with chromate conversion coating (see ISO 2081 and ISO 4520). Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.
Workmanship	Parts shall be uniform in quality and free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.
Taper	The taper shall be inspected by use of an adequate optical comparator.
Acceptability	The acceptance procedure is covered in ISO 3269.

5 Designation

Example for the designation of an unhardened steel taper pin, type A, with nominal diameter $d = 6$ mm and nominal length $l = 30$ mm :

Taper pin ISO 2339 - A - 6 x 30 - St