

## Westfield Fasteners Product Specification:

### DIN 7981, similar to - Square Drive Pan Head Self Tapping Screws Type C Point

This product guide contains the specification for Self Tapping Screws with a Square Drive Pan Head, a series of standard parts available from Westfield Fasteners. The basis of this specification is the DIN standard DIN 7981.

#### Product Description

Square drive pan head tapping screws are suitable for use with sheet metal and plastics. The square drive makes 'cam-outs' or screwdriver slips less likely, as the driver connects more securely than a pozi or a phillips drive.

As their name suggests, self tapping screws form their own thread as they are installed into a pre-drilled hole.

#### Scope of the DIN standard.

DIN 7981 specifies the tolerances and the variation in form of pan head tapping screws, for sizes from No.2 (2.2 mm) up to and including No.14 (6.3 mm). This type of tapping screw has an AB type thread, which is the most prevalent tapping screw thread form on the market. This means that the threads are closer together than other tapping screw thread forms. Another defining feature of these screws is their type C cone point.

Table 1 below defines the overall dimensions and tolerances of this screw type, whilst table 2 defines the tolerances on the shank length.

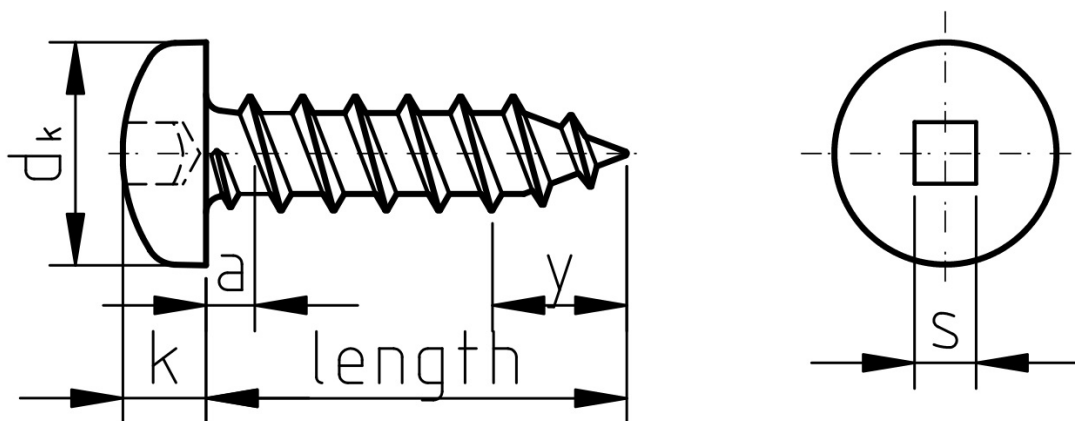


Figure 1: Square Drive Pan Head Self Tapping Screws

#### Variations from DIN 7981

The DIN standard DIN 7981 does not mention a square drive as an option, but these screws conform in every other respect.

**Table 1: Dimensions & Tolerances according to DIN 7981 (mm)**

<b>thread diameter</b>		<b>2.2</b>	<b>2.9</b>	<b>3.5</b>	<b>3.9</b>	<b>4.2</b>	<b>4.8</b>	<b>5.5</b>	<b>6.3</b>
thread pitch, p		0.8	1.1	1.3	1.3	1.4	1.6	1.8	1.8
distance to first full thread, a	max	0.8	1.1	1.3	1.3	1.4	1.6	1.8	1.8
head diameter, $d_k$	max=nom	4.2	5.6	6.9	7.5	8.2	9.5	10.8	12.5
	min	3.9	5.3	6.54	7.14	7.84	9.14	10.37	12.07
head height, k	max=nom	1.8	2.2	2.6	2.8	3.05	3.55	3.95	4.55
	min	1.55	1.95	2.35	2.55	2.75	3.25	3.65	4.25
radius under head, r	max	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9
radius of head dome, $r_f$	≈ (approx.)	3.4	4.4	5.4	5.8	6.2	7.2	8.2	9.5
length of threaded end, y max	Type C	2	2.6	3.2	3.5	3.7	4.3	5	6
S drive		-	-	SQ1	SQ1	SQ2	SQ2	-	SQ3

**Table 2: Shank Length Tolerance according to DIN 7981 (mm)**

<b>Nominal Length</b>	<b>Type C</b>	
	min	max
4.5	3.7	5.3
6.5	5.7	7.3
9.5	8.7	10.3
13	12.2	13.8
16	15.2	16.8
19	18.2	19.8
22	21.2	22.8
25	24.2	25.8
32	30.7	33.3
38	36.7	39.3

For further details, please refer to the ISO/DIN standard document for this item.