EJOT DELTA PT®

Self-tapping fastener for plastics
(thermoplastic materials)

The EJOT DELTA PT® has been developed from many years of practice in the field of direct fastening into thermoplastic materials.
Several years of research have led to the conclusion that the clamp load of thermoplastic joints can be calculated (VDI 2230). A prognosis programme and the DELTA PT® screw with its optimised thread geometry were developed.
The result is a tough fastener that guarantees safety and reliability even in extreme applications.

EJOT DELTA PT® for selftapping in thermoplastic materials

Advantages of the EJOT PT® screw:

- Minimal radial tension due to optimized flank angle
- High clamp loads
- High tensile and torsion strength
- Increased cycle stress stability
- High strength under vibration
- DELTA PT® prognosis programme allows a clamp load oriented engineering
- Long lifetime of the joint
- Standard material through hardened steel [PT10]

Boss design

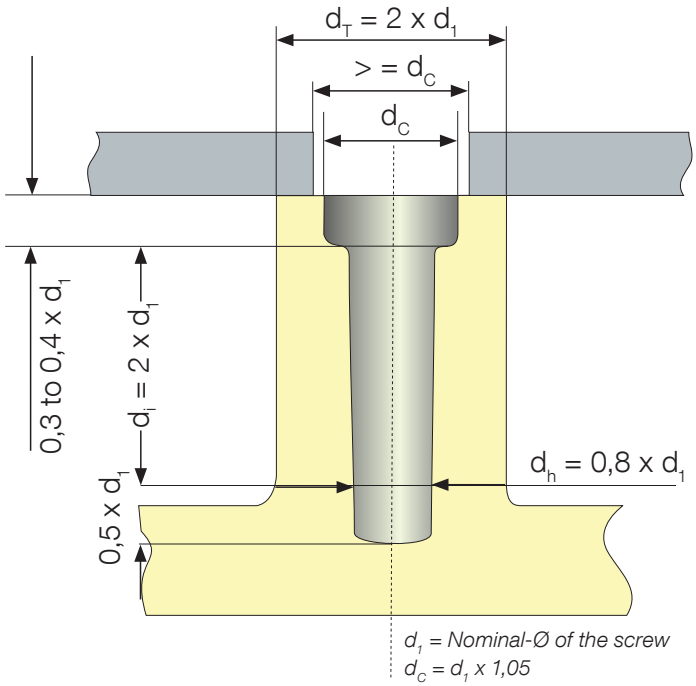
The most favourable hole diameter has in most cases proven to be:

d_h = 0,8 x d_1 ± tolerance of screwdiameter

(see tolerance brochure page 16)

For higher filled materials or materials with a bigger strength the hole diameter can be increased up to d_h = 0,88 x d_1.

Application sample into manyfold



EJOT. Bringing it together.

Chrom VI free surfaces:

- zinc clear / blue passivated
- zinc clear / blue passivated with EJOSEAL (240h resistance to Zn-corrosion)
- zinc clear / thick film passivation
- ZnFe or ZnNi / transparent passivated (with or without black top coats)
- ZnNi, black passivated
- zinc flake coatings (depending on Ø) (e.g. Delta Protekt)

Fastener materials:

- Through hardened steel according to DIN EN ISO 10263 T4 with material property [PT 10] (WN 5461, part 2)
- Stainless steel [A2], [A4]
- Aluminium [Alu]

Possible dimension range of EJOT DELTA PT® screws

	10	12	14	16	18	20	22	25	30	35	40	45	60	70	80	100
Ø d_1 [mm]	1,0	1,2	1,4	1,6	1,8	2,0	2,2	2,5	3,0	3,5	4,0	4,5	6,0	7,0	8,0	10,0
Length [mm]																
3,0																
3,5																
4,0																
4,5																
5,0																
6,0																
7,0					R			(S)								
8,0					R	R	R	S	(S)							
9,0					R	R	R	R, S	S	(S)						
10,0					R	R	R	R, S	S	(S)						
12,0					R	R	R	R, S	R, S	S	(S)	(S)				
14,0					R	R	R	R, S	R, S	R, S	R, S	(S)				
15,0					R	R	R	R, S	R, S	R, S	R, S	S				
16,0					R	R	R	R, S	R, S	R, S	R, S	R, S	(S)			
18,0					R	R	R	R, S	R, S	R, S	R, S	R, S	(S)			
20,0						R	R	R, S	R, S	R, S	R, S	R, S	S			
21,0							R	R, S	R, S	R, S	R, S	R, S	R, S			
22,0							R	R, S	R, S	R, S	R, S	R, S	R, S			
24,0								R, S	R, S	R, S	R, S	R, S	R, S			
25,0								R, S	R, S	R, S	R, S	R, S	R, S			
27,0									R, S	R, S	R, S	R, S	R, S			
30,0									R, S	R, S	R, S	R, S	R, S			
35,0										R, S	R, S	R, S	R, S			
36,0											R, S	R, S	R, S			
40,0											R, S	R, S	R, S			
42,0												R, S	R, S			
45,0												R, S	R, S			
48,0													R, S			
50,0													R, S			
60,0													R, S			
70,0																
80,0																
100,0																

Upper line ≙ minimal length
(countersunk head length L_{min} = L + 2 mm)

Lower line ≙ maximal length

Length > 60 mm with partial thread only
(partial thread length 4 x d_1)

Special geometries upon request!

S Manufacturing with cutting edge possible
(S) Manufacturing with cutting edge possible (not in connection with WN 5411 and WN 5451)
R Manufacturing with pilot point possible (length tolerance acc. js 17)

For more information please contact EJOT Hotline: phone +49 2751 529-123, e-mail hotline@ejot.com

08.09/PDF08.23 All technical data may be subject to technical improvements.

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