

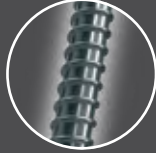
TUP4

Long nylon high expansion plug

Versions Available

- White Zinc Plated Pozidrive Countersunk Screw
- White Zinc Plated Torx Countersunk Screw
- Stainless Steel A4 Torx Countersunk Screw
- White Zinc Plated Hex Head Screw

Long nylon
high expansion plug



ROUNDED THREAD SCREW

Prevents internal damage to the plug



TOP PERFORMANCE

The internal and external design generates increased expansion



CONTROLLED EXPANSION

The innovative groove in the plug ensures correct positioning of the screw during installation

Applications

- All Facade Applications
- Wet & Dry wall clamps
- Door & Window Frames
- Kitchen Cabinets
- Safety Grills & Railings
- HVAC Applications

TUP4

Countersunk head screw
white zinc plated
Ø 8 Pozidrive n°3 recess
Ø10 Pozidrive n°4 recess

Countersunk head screw
Ø 8 Torx T-30 recess
Ø10 Torx T-40 recess



White Zinc Plated Code	White Zinc Plated Code	Inox Stainless steel A4-70 Code	Plug do x L mm	Screw d x Lv mm	tfix mm	df mm	sw	Pkg.	Outer box
64102b08080	64103b08080	64103008080	8x80	5.5x85	10	8	10	100	1000
64102b08100	64103b08100	64103008100	8x100	5.5x105	30	8	10	50	500
64102b08120	64103b08120	64103008120	8x120	5.5x125	50	8	10	50	500
64102b10085	64103b10085	64103010085	10x85	7x90	15	10	13	100	1000
64102b10100	64103b10100	64103010100	10x100	7x105	30	10	13	50	500
64102b10115	64103b10115	64103010115	10x115	7x120	45	10	13	50	500
64102b10135	64103b10135	64103010135	10x135	7x140	65	10	13	50	500
64102b10160	64103b10160	64103010160	10x160	7x165	90	10	13	50	500
64102b10200	64103b10200	64103010200	10x200	7x205	130	10	13	50	250

TUP4

Hex head screw



White zinc plated Code	Plug do x L mm	Screw d x Lv mm	tfix mm	df mm	sw	Pkg.	Outer box
64101b08080	8x80	5.5x85	10	8	10	100	1000
64101b08100	8x100	5.5x105	30	8	10	50	500
64101b08120	8x120	5.5x125	50	8	10	50	500
64101b10085	10x85	7x90	15	10	13	100	1000
64101b10100	10x100	7x105	30	10	13	50	500
64101b10115	10x115	7x120	45	10	13	50	500
64101b10135	10x135	7x140	65	10	13	50	500
64101b10160	10x160	7x165	90	10	13	50	500
64101b10200	10x200	7x205	130	10	13	50	250
64101b12135	12x135	10x140	65	12	17	25	250
64101b12160	12x160	10x165	90	12	17	25	250
64101b12200	12x200	10x205	130	12	17	25	250
64101b12240	12x240	10x245	170	12	17	25	250

FEATURES

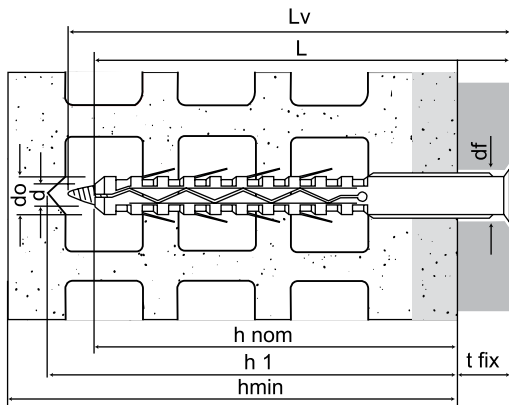
- Maximum Versatility
- High Quality Nylon
- Low Torque needed during expansion
- Multi Expansion
- CE Certified
- Innovative. Variable Geometry

ADVANTAGES

- Tested in wide range of Base Materials
- Ultra Flexible
- Can also be fixed by Hand
- Excellent Keying & Friction
- Guaranteed Safety
- Optimal expansion is guaranteed preventing rotation & slipping in the hole

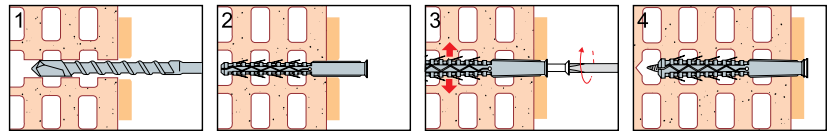
Base Materials

- Concrete
- Light Weight Honeycomb Brick
- Solid Stone
- Solid Brick
- Hollow Dense Aggregate Block
- Suitable applications
- Partially suitable applications
- Honeycomb Brick
- Hollow Light Aggregate Block
- Clay Brick
- Aerated Concrete



- d = screw diameter
- df = hole diameter of fixing element
- do = hole diameter
- h1 = minimum hole depth
- hmin = minimum support thickness
- hnom = nominal embedment depth
- L = anchor length
- Lv = screw length
- sw = wrench
- tfix = fixture thickness

Installation Procedure



DESIGN AND RECOMMENDED⁽¹⁾ LOADS

Single anchor with large anchor spacing and edge distances

Anchor			Ø8	Ø10	Ø12
Minimum support thickness	h_{min}	mm	125	125	125
Minimum hole depth	h_1	mm	80	80	80
Nominal embedment depth	h_{nom}	mm	70	70	70
Hole diameter	d_o	mm	8	10	12
Concrete C20/C25	Tensile	N_{rd}	1.7	1.8	2.8
		N	1.2	1.3	2.0
	Shear	V_{rd}	1.7	2.1	2.8
		V	1.2	1.5	2.0
Cell like clay brick ⁽²⁾	Tensile	N_{rd}	0.17	0.21	0.56
		N	0.12	0.15	0.4
	Shear	V_{rd}	0.21	0.28	0.7
		V	0.15	0.2	0.5
Hollow clay brick double UNI ⁽²⁾	Tensile	N_{rd}	0.35	0.5	1.0
		N	0.25	0.35	0.7
	Shear	V_{rd}	1.1	1.4	1.8
		V	0.8	1	1.3
Spacing ⁽³⁾	S	mm	105	105	105
Edge distance ⁽³⁾	C	mm	105	105	105

1kN = 100 kgf

⁽¹⁾ The recommended loads derive from the mean ultimate loads and are inclusive of the total safety factor $\gamma=6$.


























































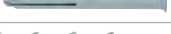


⁽²⁾ Base material with plaster thickness around 10÷15 mm.

⁽³⁾ In case of broken bricks double the distances of the indicative data.

NOTE: The torque has to be regulated according to the type of installation and base material.

In the absence of CE markings, the recommended loads derive from tests carried out in the Friulsider laboratory in accordance with the appropriate standards. The load values are only valid if the installation has been carried out correctly. The design engineer is responsible for the designing and calculation of the fixing.

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