Technical Sheet

TSS
Countersunk Preassembled Nylon Plug

The TSS nylon plug in Ø6 and Ø8 mm versions are approved for fastening in concrete. When the nail screw is driven into the anchor plug, it is expanded and securely anchored in the building material.







Features

Material

- Plug: grey nylon
- Screw: white zinc plated steel

Benefits

- Countersunk rim for roofing professionals
- Innovative geometry

Applications

Applications

- Wooden battens
- Electrical components
- Skirting boards

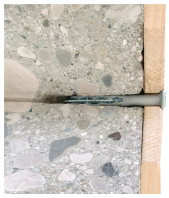
Suitable for

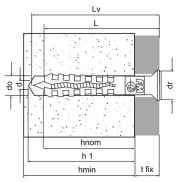
- Non-cracked concrete
- Solid brick
- Honeycomb brick (partially suitable)
- Cell like clay brick (partially suitable)
- Lightweight honeycomb brick (partially suitable)
- Hollow dense aggregate block (partially suitable)
- Hollow light aggregate block (partially suitable)
- Aerated concrete (partially suitable)
- Solid stone

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Technical Data





Product Dimensions

Reference	Nylon fixings dimensions								Nylon fixings Installation data			
	Info product[mm]								Installation data			
	Product Reference	Fixture thickness [$tfix$][mm]	Screw diameter [d][mm]	Screw length [Lv] [mm]	Collar diameter [dr][mm]	Qty per box[stk]	Qty per outer box	Weight[kg]	Hole diameter x anchor length [$doxL$] [mm]	Min. hole depth [$h1$] [mm]	Nominal embedment depth [$hnom$] [mm]	Min. support thickness [$hmin$][mm]
62200B0503000	TSS	5	3.4	35	8.5	300.0	3000.0	0.003	Ø5x30*	35	25	50
62200B0504000	TSS	15	3.4	45	8.5	200.0	2000.0	0.003	Ø5x40*	35	25	50
62200B0505000	TSS	25	3.4	55	8.5	200.0	2000.0	0.004	Ø5x50*	35	25	50
62200B0604000	TSS	10	3.8	45	10	200.0	2000.0	0.004	Ø6x40	40	30	100
62200B0605000	TSS	20	3.8	55	10	100.0	1000.0	0.006	Ø6x50	40	30	100
62200B0606000	TSS	30	3.8	65	10	100.0	1000.0	0.007	Ø6x60	40	30	100
62200B0608000	TSS	50	3.8	85	10	100.0	1000.0	0.008	Ø6x80	40	30	100
62200B0806000	TSS	20	4.8	65	12	150.0	1500.0	0.011	Ø8x60	50	40	100
62200B0808000	TSS	40	4.8	85	12	150.0	1500.0	0.014	Ø8x80	50	40	100
62200B0810000	TSS	60	4.8	105	12	100.0	1000.0	0.018	Ø8x100	50	40	100
62200B0812000	TSS	80	4.8	125	12	100.0	1000.0	0.021	Ø8x120	50	40	100
62200B0814000	TSS	100	4.8	145	12	100.0	1000.0	0.025	Ø8x140	50	40	100
62200B1008000	TSS	30	7	85	14	100.0	1000.0	0.025	Ø10x80*	60	50	100
62200B1010000	TSS	50	7	105	14	100.0	400.0	0.03	Ø10x100*	60	50	100
62200B1013500	TSS	85	7	140	14	50.0	500.0	0.04	Ø10x135*	60	50	100
62200B1016000	TSS	110	7	165	14	50.0	500.0	0.048	Ø10x160*	60	50	100

* *Not covered by CE certification*

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Design capacities - single anchor - no edge distances

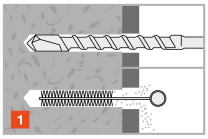
Reference	Nylon fixings Loads				
	Design capacities - single anchor - no edge distances				
	Design capacity				
	Bending moment MRd[Nm]	Tension - NRd (1)		Shear - VRd (1-2)	
		C20/25[kN]	Solid Brick[kN]	C20/25[kN]	Solid Brick[kN]
62200B0503000	-	0.23	0.2	0.6	0.6
62200B0504000	-	0.23	0.2	0.6	0.6
62200B0505000	-	0.23	0.2	0.6	0.6
62200B0604000	-	0.6	0.36	0.6	0.6
62200B0605000	-	0.6	0.36	0.6	0.6
62200B0606000	-	0.6	0.36	0.6	0.6
62200B0608000	-	0.6	0.36	0.6	0.6
62200B0806000	-	0.6	0.45	1.2	1.2
62200B0808000	-	0.6	0.45	1.2	1.2
62200B0810000	-	0.6	0.45	1.2	1.2
62200B0812000	-	0.6	0.45	1.2	1.2
62200B0814000	-	0.6	0.45	1.2	1.2
62200B1008000	-	0.6	0.48	1.65	1.65
62200B1010000	-	0.6	0.48	1.65	1.65
62200B1013500	-	0.6	0.48	1.65	1.65
62200B1016000	-	0.6	0.48	1.65	1.65

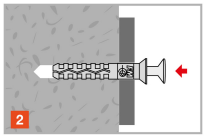
1. The design loads loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).
*Not covered by ETA-11/0080

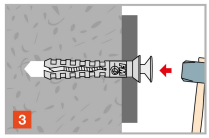
Technical Sheet

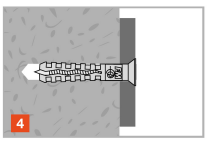
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Installation









Spacing and edge distance

Reference	Nylon fixings dimensions	Nylon fixings Installation data		
	Info product[mm]	Installation data	Spacings and edge distances	
	Product Reference	Hole diameter x anchor length [d_oxL][mm]	Min. edge distance[mm]	Min. spacing[mm]
62200B0503000	TSS	Ø5x30*	50	50
62200B0504000	TSS	Ø5x40*	50	50
62200B0505000	TSS	Ø5x50*	50	50
62200B0604000	TSS	Ø6x40	100	100
62200B0605000	TSS	Ø6x50	100	100
62200B0606000	TSS	Ø6x60	100	100
62200B0608000	TSS	Ø6x80	100	100
62200B0806000	TSS	Ø8x60	100	100
62200B0808000	TSS	Ø8x80	100	100
62200B0810000	TSS	Ø8x100	100	100
62200B0812000	TSS	Ø8x120	100	100
62200B0814000	TSS	Ø8x140	100	100
62200B1008000	TSS	Ø10x80*	100	100
62200B1010000	TSS	Ø10x100*	100	100
62200B1013500	TSS	Ø10x135*	100	100
62200B1016000	TSS	Ø10x160*	100	100

* Not included in the approval

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Installation data

Reference	Nylon fixings dimensions	Nylon fixings Installation data			
	Info product[mm]	Installation data			
	Product Reference	Hole diameter x anchor length [d_oxL] [mm]	Ø drilling hole[mm]	Min. hole depth [h_1] [mm]	Min. support thickness [h_{min}] [mm]
62200B0503000	TSS	Ø5x30*	5	35	50
62200B0504000	TSS	Ø5x40*	5	35	50
62200B0505000	TSS	Ø5x50*	5	35	50
62200B0604000	TSS	Ø6x40	6	40	100
62200B0605000	TSS	Ø6x50	6	40	100
62200B0606000	TSS	Ø6x60	6	40	100
62200B0608000	TSS	Ø6x80	6	40	100
62200B0806000	TSS	Ø8x60	8	50	100
62200B0808000	TSS	Ø8x80	8	50	100
62200B0810000	TSS	Ø8x100	8	50	100
62200B0812000	TSS	Ø8x120	8	50	100
62200B0814000	TSS	Ø8x140	8	50	100
62200B1008000	TSS	Ø10x80*	10	60	100
62200B1010000	TSS	Ø10x100*	10	60	100
62200B1013500	TSS	Ø10x135*	10	60	100
62200B1016000	TSS	Ø10x160*	10	60	100

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