

The installation-friendly nylon toggle - for high loads in plaster board



BUILDING MATERIALS

- Gypsum plasterboard
- Gypsum fibreboard
- Wooden panels, such as OSB boards, chipboard, MDF plywood sheets
- Steel plates
- Plastic boards

Also functioning in:

- solid materials, such as concrete and wood

ASSESSMENT/APPROVAL



ADVANTAGES

- Small drill hole diameter (10 mm) and short toggle element (39 mm) for easy installation in narrow, also insulated cavities
- Fibre-glass reinforced 2-component toggle element and collar-sleeve for high tensile and shear loads
- No cutting-in and therefore no weakening of the plasterboard
- Flexible screw holder for chipboard screws or threaded rods with lock nuts
- Also usable as an expansion plug for drill holes in solid materials like concrete or wood
- Easy pre-assembly - collar-sleeve pre-fixes plug without screw
- Several parallel fixing points with small distances possible

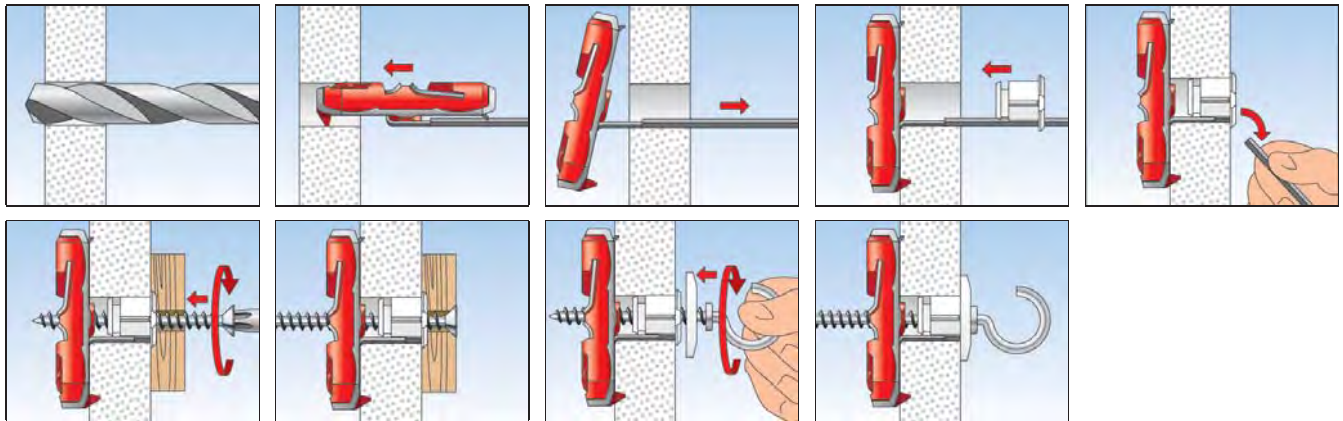
APPLICATIONS

- Kitchen hanging cabinets
- Living room cabinets
- Shelves
- Wardrobes
- Handrails
- Pictures
- Mirrors
- Lamps

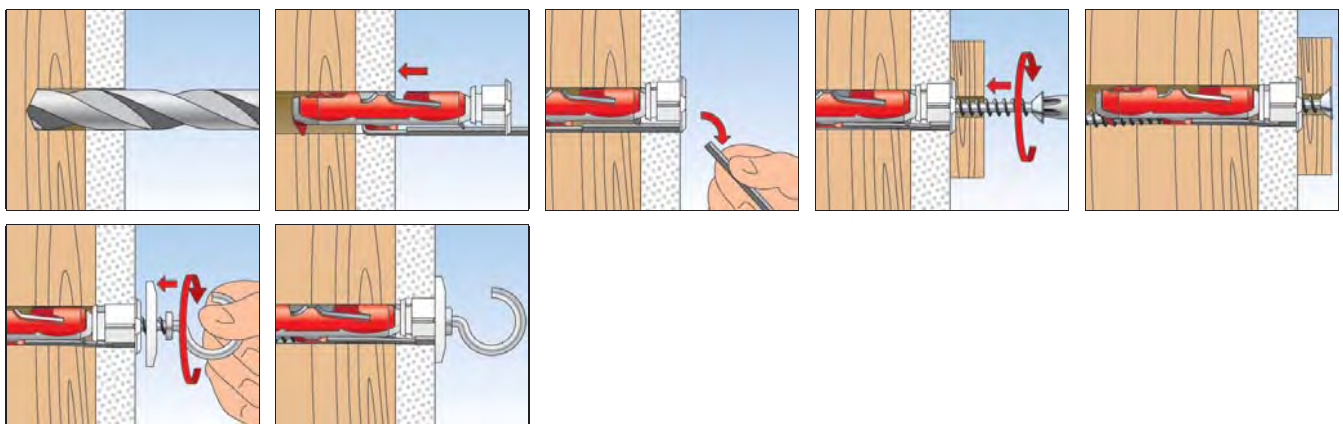
FUNCTIONING

- The DUOTEC anchor is suitable for pre-positioned installation
- Easy installation using a standard 10 mm drill
- The toggle element of the plug automatically toggles behind the board and gives it its strength
- In drill holes in solid building materials, such as concrete and wood, the plug works like an expansion plug
- Thanks to the short toggle element, the plug is also suitable for narrow, even with mineral wool insulated cavities with depths from 50 mm, uninsulated from 40 mm and boards from 9.5 mm thicknesses
- The flexible, stainless steel screw holder (stainless steel A2) allows wood screws, chipboard screws, metric hooks and threaded rods with lock nuts to be used

INSTALLATION BOARD MATERIAL



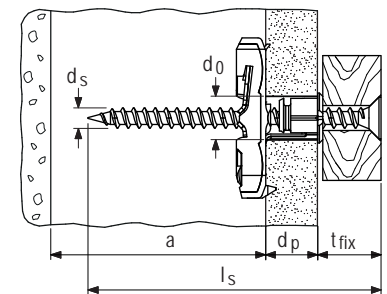
INSTALLATION SOLID MATERIAL



TECHNICAL DATA BOARD MATERIAL



Nylon toggle **DUOTEC**

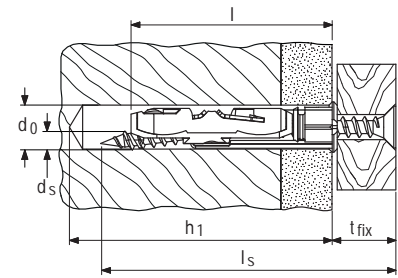


Item	Art.-No.	Drill hole diameter d_0 [mm]	Min. panel thickness d_p [mm]	Max. panel thickness d_p [mm]	Min. cavity depth a [mm]	Screw diameter d_s [mm]	Screw length l_s [mm]	Sales unit [pcs]
DUOTEC	537258	10	9,5	55	40	4,5 - 5	$\geq d_p + t_{fix} + 20$	50
DUOTEC S	537259	10	9,5	55	40	5,0	70	25
DUOTEC S PH	539025	10	9,5	55	40	5,0	70	25

TECHNICAL DATA SOLID MATERIAL



Nylon toggle **DUOTEC**



Item	Art.-No.	Drill hole diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Screw diameter d_s [mm]	min. screw length [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Sales unit [pcs]
DUOTEC	537258	10	$l_s + 10$	4,5 - 5	$\geq t_{fix} + 60$	47	—	50
DUOTEC S	537259	10	80	5,0	70	47	10	25
DUOTEC S PH	539025	10	80	5,0	70	47	10	25

LOADS

Nylon toggle DUOTEC

Highest recommended loads¹⁾ for a single anchor.

Type			DUOTEC			
			Chipboard screw		Metric Thread	fischer hook
Screw diameter	[mm]		4,5	5	5	5
Recommended loads in the respective base material F_{rec} for a span in the construction $b=625\text{mm}$						
Gypsum plasterboard	9,5 mm	[kN]	0,17	0,17	0,17	0,17
Gypsum plasterboard	12,5 mm	[kN]	0,20	0,20	0,20	0,20
Gypsum plasterboard	2 x 12,5 mm	[kN]	0,43	0,43	0,43	0,30 ²⁾
Gypsum fiberboard	12,5 mm	[kN]	0,51	0,51	0,51	0,30 ²⁾
Chipboard	16 mm	[kN]	0,71	0,71	0,71	0,30 ²⁾
OSB-Board	18 mm	[kN]	0,75	0,75	0,75	0,30 ²⁾
Recommended loads in the respective base material F_{rec} for a span in the construction $b=120\text{mm}$						
Gypsum plasterboard	9,5 mm	[kN]	0,20	0,20	0,20	0,20
Gypsum plasterboard	12,5 mm	[kN]	0,36	0,36	0,36	0,30 ²⁾
Gypsum plasterboard	2 x 12,5 mm	[kN]	0,59	0,59	0,59	0,30 ²⁾
Gypsum fiberboard	12,5 mm	[kN]	0,75	0,75	0,75	0,30 ²⁾
Chipboard	16 mm	[kN]	0,75	0,75	0,75	0,30 ²⁾
OSB-Board	18 mm	[kN]	0,75	0,75	0,75	0,30 ²⁾
Recommended loads in solid building materials F_{rec}						
Concrete	$\geq \text{C20/25}$	[kN]	0,45	0,75	-	0,30 ²⁾
Wood		[kN]	0,30	0,75	-	0,30 ²⁾

¹⁾ Required safety factors are considered. The load data are valid for tension, shear and combined tension and shear load.

²⁾ Bending of the hook is decisive. Only for tension load.