Nylon toggle DUOTEC

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

Kitchen hanging cabinets

Shelves

BUILDING MATERIALS

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

Also functioning in:

- Solid materials, such as concrete and wood

CHARACTERISTICS

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 prefixes plug without screw.
- Several parallel fixing points with small distances possible.
- Multiple screwing in and out of the screw is possible.

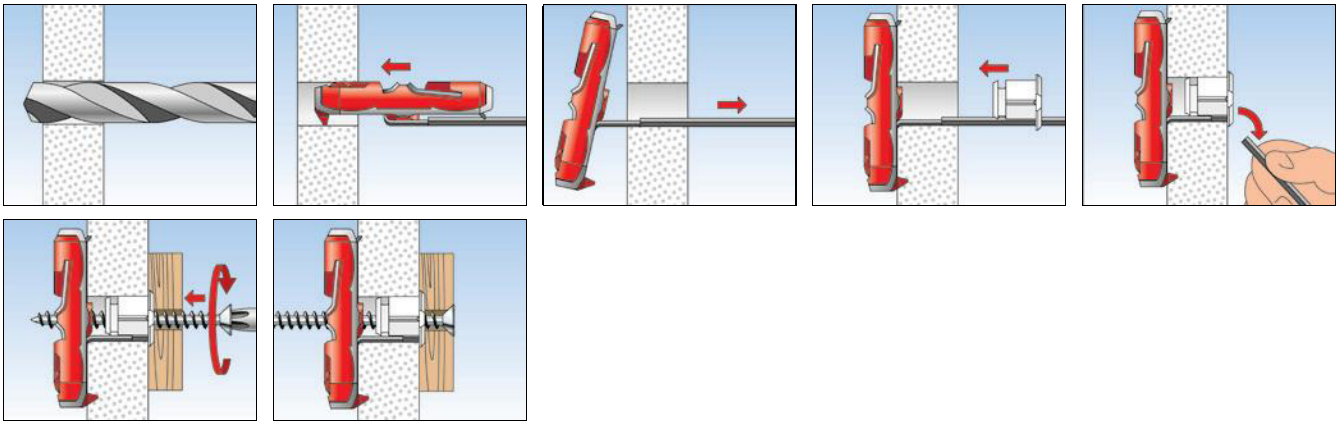
APPLICATIONS

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

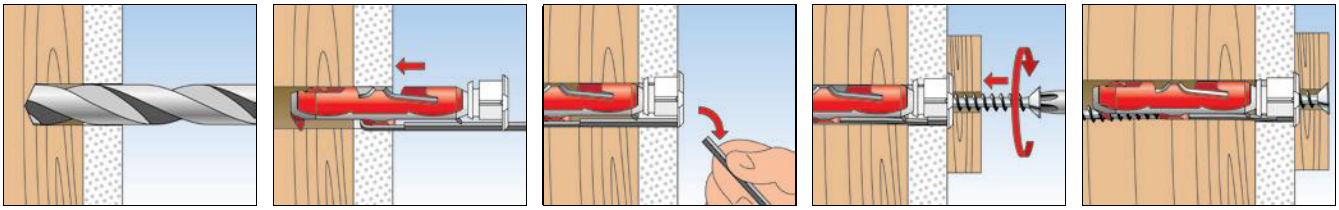
FUNCTIONING

- 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 allows wood screws, chipboard screws or metric hooks with lock nuts to be used.

INSTALLATION BOARD MATERIAL

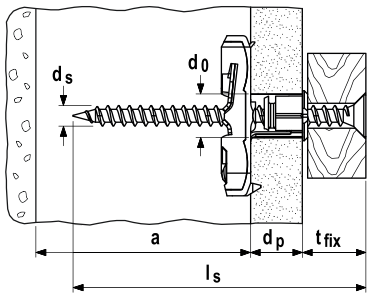


INSTALLATION SOLID MATERIAL



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	≥ dp + tfix +20	50
DUOTEC S	**537259** 1)	10	9,5	55	40	5,0	70	25
DUOTEC S PH	**539025** 2)	10	9,5	55	40	5,0	70	25

1) DUOTEC S - with chipboard screw countersunk head

2) DUOTEC S PH - mit chipboard screw panhead

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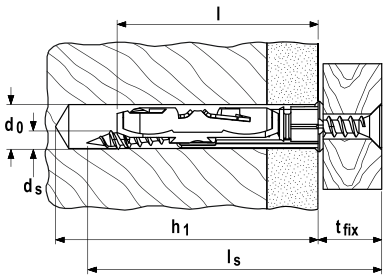
TECHNICAL DATA SOLID MATERIAL

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	ls + 10	4,5 - 5	≥ tfix + 60	47	–	50
DUOTEC S	**537259** 1)	10	80	5,0	70	47	10	25
DUOTEC S PH	**539025** 2)	10	80	5,0	70	47	10	25

1) DUOTEC S - with chipboard screw countersunk head

2) DUOTEC S PH - mit chipboard screw panhead

LOADS

Nylon toggle DUOTEC

Highest recommended loads[1)] 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=625mm						
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=120mm						
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	≥ 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.