Easy to install nylon toggle for high loads in all panel building materials

Kitchen hanging cabinets

Shelves

BUILDING MATERIALS

Suitable for:

- Gypsum plasterboard
- Gypsum fibreboard
- Wooden panels, such as OSB boards, chipboard, MDF sheets
- Steel plates
- Plastic boards
- Hollow blocks made from concrete

Also functioning in:

- Solid materials, such as concrete and wood

CERTIFICATES

ADVANTAGES

- Flexible screw mount allows for the use of screws and hooks with different thread shapes.
- Glass fibre-reinforced plastics and a metal skeleton insert (fischer DUOTEC 12) allow the toggle to handle heavy tensile and transverse loads in all panel building materials.
- Soft grey nylon contact surface distributes the load over the panel surface, thereby minimising weakening of the supporting building material.
- Standard drill hole diameters and short tilting element for easy installation in narrow cavities, including cavities with insulation.
- White flush sleeve with snap function allows the plug to be pre-installed quickly and securely in the drill hole.
- With scale on the grip strap (fischer DUOTEC 12) for determining the required screw length (scale value + 20 mm).

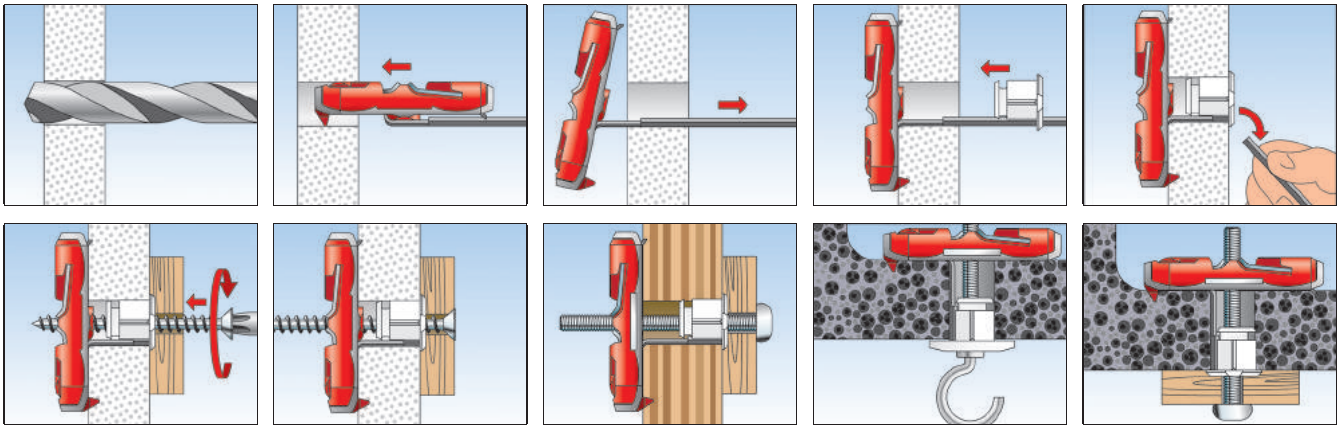
APPLICATIONS

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

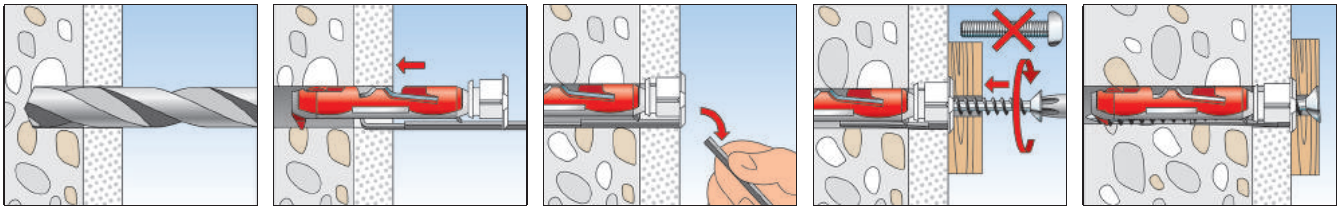
FUNCTIONING

- The fischer DUOTEC is designed for pre-positioned installation.
- Simple installation with a standard diameter 10 or 12 mm drill bit.
- The short toggle element makes it suitable for narrow and even with mineral wool insulated cavities. Note the length of the toggle element!
- Functions like an expansion plug in solid building materials such as concrete or wood. Note, not with metric screws!
- Flexible screw insert allows for the use of wood, chipboard and metric screws and hooks.

INSTALLATION IN PLASTERBOARD AND CAVITY FIXINGS



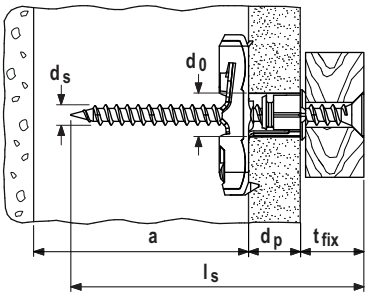
INSTALLATION HITTING IN SOLID MATERIALS



TECHNICAL DATA BOARD MATERIAL

Nylon toggle **fischer DUOTEC 10**

Nylon toggle **fischer DUOTEC 12**



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]
fischer DUOTEC 10	**537258**	10	12	55	40	4,5 - 5,0	≥ dp + tfix +20	50
fischer DUOTEC 10 S	**537259** 1)	10	12	55	40	5,0	70	25
fischer DUOTEC 10 S PH	**539025** 2)	10	12	55	40	5,0	70	25
fischer DUOTEC 12	**542796**	12	12	55	50	5,0 - 6,0 / M6	≥ dp + tfix +20	10
fischer DUOTEC 12 S PH M	**542797** 2)3)	12	12	55	50	M6	55	10
fischer DUOTEC 12 RH	**542798** 4)	12	12	55	50	5,5	70	10

1) DUOTEC S - with chipboard screw countersunk head

2) DUOTEC S PH - with chipboard screw panhead

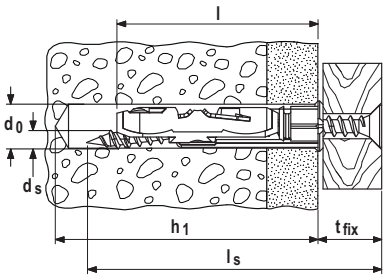
3) DUOTEC S PH - with machine screw panhead

4) DUOTEC RH - with screw with round hook

TECHNICAL DATA HITTING IN SOLID MATERIALS

Nylon toggle **fischer DUOTEC 10**

Nylon toggle **fischer DUOTEC 12**



Item	Art.-No.	Drill hole diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Screw diameter [mm]	Min. screw length l_s [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Sales unit [pcs]
fischer DUOTEC 10	**537258**	10	ls - tfix + 10	4,5 - 5,0	tfix + 55	50	ls - 55	50
fischer DUOTEC 10 S	**537259** 1)	10	65	5,0	70	50	15	25
fischer DUOTEC 10 S PH	**539025** 2)	10	65	5,0	70	50	15	25
fischer DUOTEC 12	**542796**	12	ls - tfix + 10	5,0 - 6,0	tfix + 65	60	ls - 65	10
fischer DUOTEC 12 RH	**542798** 3)	12	75	5,5	55	60	–	10

1) DUOTEC S - with chipboard screw countersunk head

2) DUOTEC S PH - with chipboard screw panhead

3) DUOTEC RH - with screw with round hook

LOADS

Nylon toggle fischer DUOTEC

Highest recommended loads[1)4)] for a single anchor.

Type			DUOTEC 10				DUOTEC 12			
			Chipboard screw		Metrical screw	fischer Hook	Chipboard screw		Metrical screw	fischer Hook
Screw diameter		[mm]	4,5	5	5	5	5	6	6	5,5
Recommended loads in the respective base material F_{rec}[2)] for a span in the construction b = 625 mm										
Gypsum plasterboard	9,5 mm	[kN]	0,17	0,17	0,17	0,17	0,17	0,17	0,17	0,17
Gypsum plasterboard	12,5 mm	[kN]	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20
Gypsum plasterboard	2 x 12,5 mm	[kN]	0,43	0,43	0,43	0,30[3)]	0,43	0,43	0,43	0,43
Gypsum fibreboard	12,5 mm	[kN]	0,51	0,51	0,51	0,30[3)]	0,51	0,51	0,51	0,50[3)]
Chipboard	16 mm	[kN]	0,71	0,71	0,71	0,30[3)]	0,75	0,80	0,80	0,50[3)]
OSB board	18 mm	[kN]	0,75	0,75	0,75	0,30[3)]	0,75	1,30	1,20	0,50[3)]
Recommended loads in the respective base material F_{rec}[2)] for a span in the construction b = 120 mm										
Gypsum plasterboard	9,5 mm	[kN]	0,20	0,20	0,20	0,20	0,20	0,20	0,20	0,20
Gypsum plasterboard	12,5 mm	[kN]	0,36	0,36	0,36	0,30[3)]	0,36	0,36	0,36	0,20
Gypsum plasterboard	2 x 12,5 mm	[kN]	0,59	0,59	0,59	0,30[3)]	0,70	0,80	0,80	0,50[3)]
Gypsum fibreboard	12,5 mm	[kN]	0,75	0,75	0,75	0,30[3)]	0,80	1,10	1,10	0,50[3)]
Chipboard	16 mm	[kN]	0,75	0,75	0,75	0,30[3)]	0,80	1,40	1,30	0,50[3)]
OSB board	18 mm	[kN]	0,75	0,75	0,75	0,30[3)]	0,80	1,50	1,40	0,50[3)]
Recommended loads in solid building materials F_{rec}[2)]										
Concrete	≥ C20/25	[kN]	0,45	0,75	-	0,30[3)]	0,40	0,75	-	0,30
Wood		[kN]	0,30	0,75	-	0,30[3)]	0,20	0,65	-	0,30
Recommended loads in the respective base material F_{rec}[2)]										
Hollow block of lightweight aggregate concrete 'Sepa Parpaing'	f_b ≥ 8 N/mm²	[kN]	-	-	-	-	0,65	1,00	1,00	0,50[3)]
Pre-stressed hollow-core concrete slabs		[kN]	-	-	-	-	1,00	1,40	1,30	0,50[3)]
Hollow block of lightweight aggregate concrete Hbl acc. EN 771-3	f_b ≥ 2 N/mm²	[kN]	-	-	-	-	0,90	1,00	1,00	0,50[3)]

[1)] Required safety factors are considered.

[2)] Valid for tensile load, shear load and oblique load under any angle.

[3)] Bending of the hook is decisive. Only for tension load.

[4)] The recommended loads are reference values and depending to the building material and the workmanship. The values are only valid for the given screw diameter.