

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



Kitchen hanging cabinets



Shelves

7
Cavity fixings

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 insert allows for screws and hooks with different thread types to be used.
- Glass fibre-reinforced plastics and a metal skeleton insert (DUOTEC 12) allow the toggle to handle high tensile and transverse loads in all panel building materials.
- Soft grey nylon contact surface distributes the load over the panel surface, thereby minimising any weakening of the supporting building material.
- Standard drill hole diameters and a short toggle element for easy installation in narrow cavities, including use in cavities with insulation.
- White flange sleeve with snap function allows the toggle to be pre-installed quickly and securely in the drill hole prior to fitting the screw.
- Scale on the grip strap (DUOTEC 12) helps to determine the necessary screw length (scale value + 20 mm).

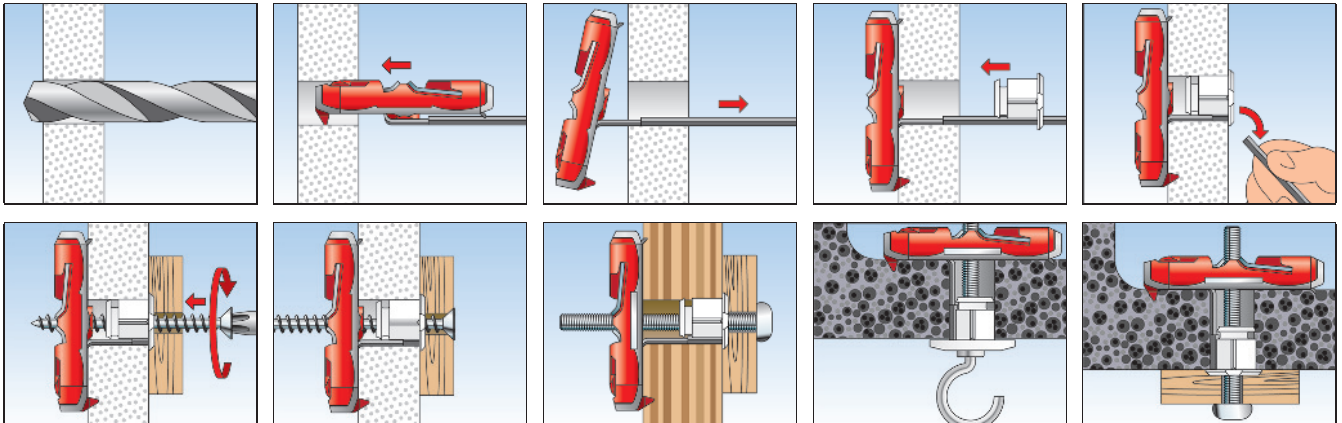
APPLICATIONS

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

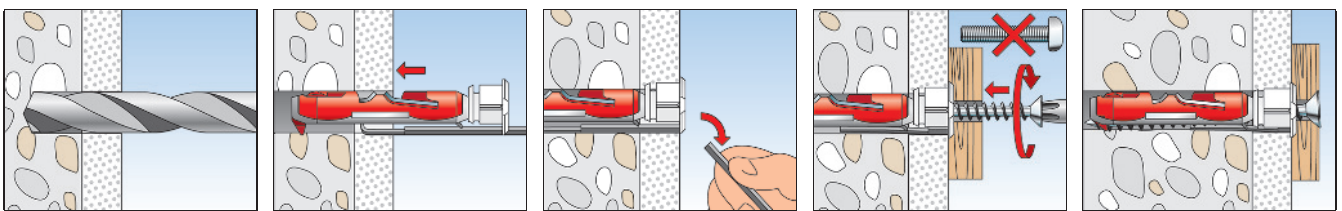
FUNCTIONING

- The 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.

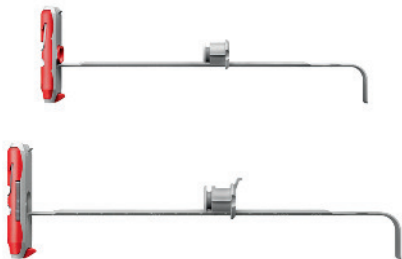
INSTALLATION IN PLASTERBOARD AND CAVITY FIXINGS



INSTALLATION HITTING IN SOLID MATERIALS

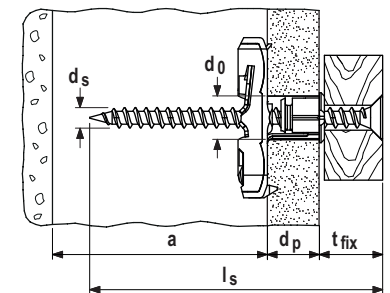


TECHNICAL DATA BOARD MATERIAL



Nylon toggle **DUOTEC 10**

Nylon toggle **DUOTEC 12**



Item	Art.-No.	Drill hole diameter	Min. panel thickness	Max. panel thickness	Min. cavity depth	Screw diameter	Screw length	Sales unit
		d_0 [mm]	d_p [mm]	d_p [mm]	a [mm]	d_s [mm]	l_s [mm]	[pcs]
DUOTEC 10	537258	10	9,5	55	40	4,5 - 5	$\geq d_p + t_{fix} + 20$	50
DUOTEC 10 S	537259 ¹⁾	10	9,5	55	40	5,0	70	25
DUOTEC 10 S PH	539025 ²⁾	10	9,5	55	40	5,0	70	25
DUOTEC 12	542796	12	9,5	55	50	5-6/M6	$\geq d_p + t_{fix} + 20$	10
DUOTEC 12 S PH	542797 ³⁾	12	9,5	55	50	5,5	55	10
DUOTEC 12 RH	542798 ⁴⁾	12	9,5	55	50	5,5	70	10

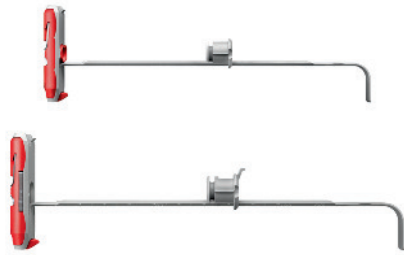
1) DUOTEC S - with chipboard screw countersunk head

2) DUOTEC S PH - with chipboard screw panhead

3) DUOTEC S PH - with machine screw panhead

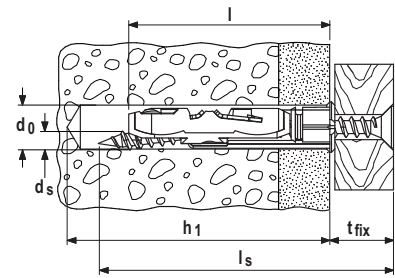
4) DUOTEC RH - with screw with round hook

TECHNICAL DATA HITTING IN SOLID MATERIALS



Nylon toggle **DUOTEC 10**

Nylon toggle **DUOTEC 12**



Item	Art.-No.	Drill hole diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Screw diameter d_s [mm]	Min. screw length l_s [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Sales unit [pcs]
DUOTEC 10	537258	10	$l_s + 10$	4,5 - 5	$\geq t_{fix} + 60$	50	$l_s - 60$	50
DUOTEC 10 S	537259 ¹⁾	10	80	5,0	70	50	10	25
DUOTEC 10 S PH	539025 ²⁾	10	80	5,0	70	50	10	25
DUOTEC 12	542796	12	80	5-6/M6	$\geq t_{fix} + 70$	58	$l_s - 70$	10
DUOTEC 12 RH	542798 ³⁾	12	80	5,5	55	58	-	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 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	$\geq C20/25$	[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'	$f_b \geq 8$ N/mm ²	[kN]	-	-	-	-	0,65	1,00	1,00	0,50 ³⁾
Pre-stressed hollow-core concrete slabs			-	-	-	-	1,00	1,40	1,30	0,50 ³⁾
Hollow block of lightweight aggregate concrete Hbl acc. EN 771-3	$f_b \geq 2$ N/mm ²	[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.