NEW

fischer DUOTEC

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

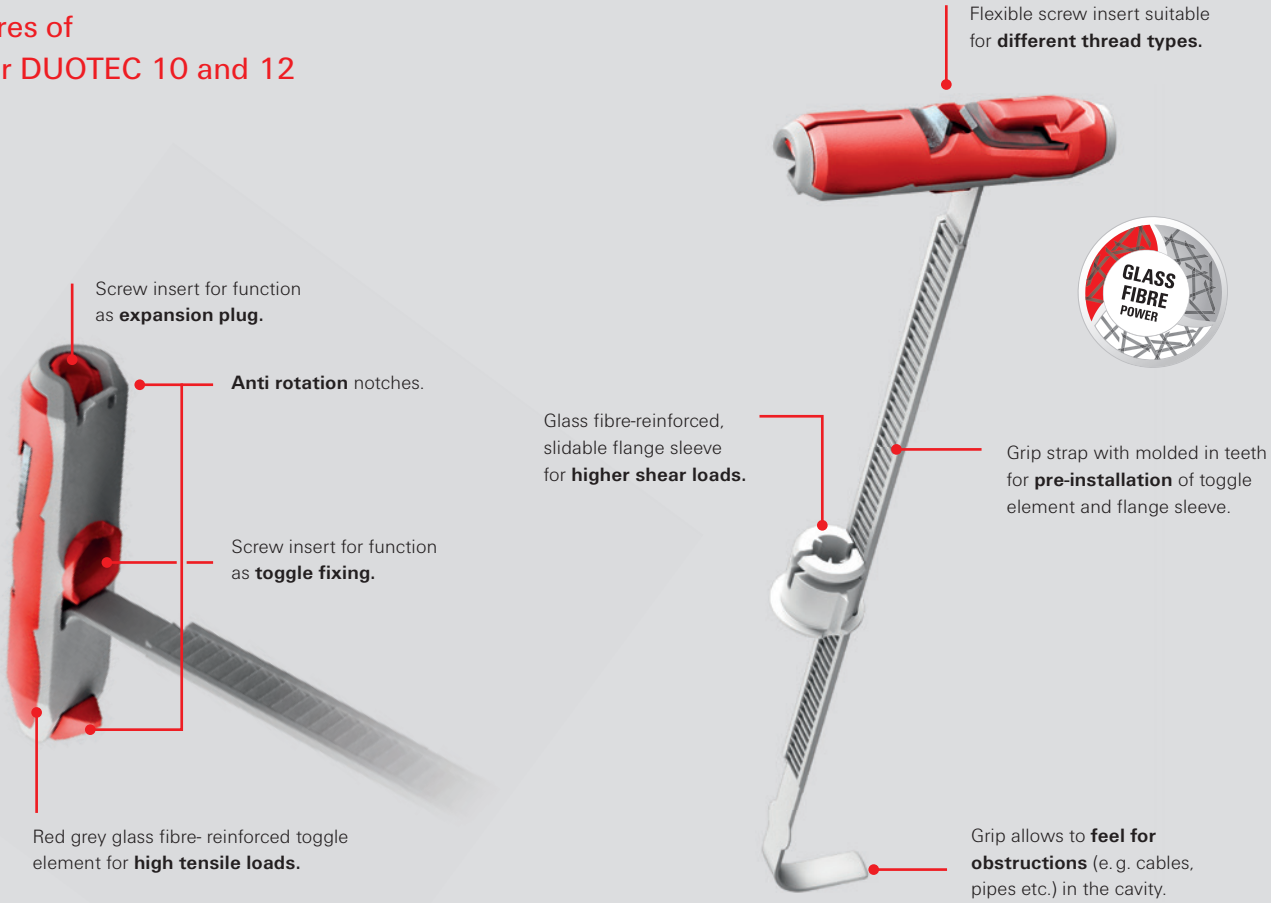
DUOline

fischer
innovative solutions

fischer DUOTEC 10

Easy to install nylon toggle for high loads in gypsum plasterboard

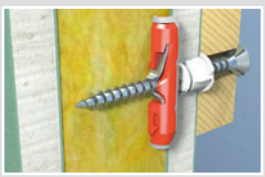
Features of fischer DUOTEC 10 and 12



Your advantages at a glance

- Flexible screw insert allows for screws and hooks with different thread types to be used.
- Glass fibre-reinforced plastics and a metal skeleton insert (fischer 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 (fischer DUOTEC 12) helps to determine the necessary screw length (scale value + 20 mm).





fischer DUOTEC 12

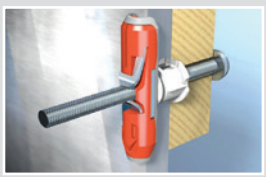
Easy to install nylon toggle with metal insert for high loads in all panel building materials

Additional features of fischer DUOTEC 12

Functioning

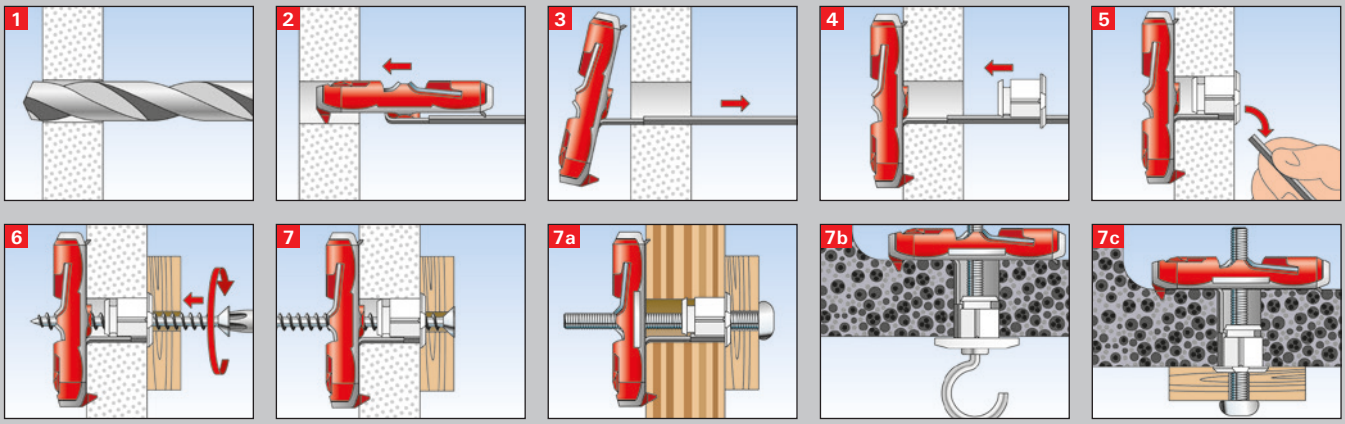
- The fischer DUOTEC is designed for pre-positioned installation.
- Simple installation with a standard diameter 10 or 12 mm drill bit.
- The short toggle element makes it suitable for narrow and even with mineral wool insulated cavities. Note the length of the toggle element!
- Functions like an expansion 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.



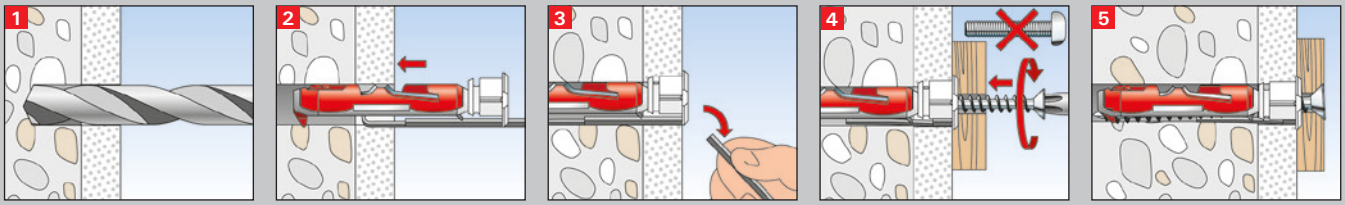


Installation and recommendation

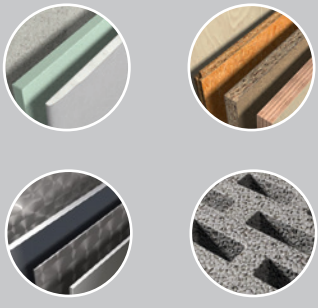
fischer DUOTEC – Installation in panel building materials and cavities



fischer DUOTEC – Installation hitting in solid materials



Recommendation



- **Suitable for all panel construction materials, such as:**
  - Gypsum plasterboard
  - Gypsum fibreboard
  - Wooden panels, such as OSB boards, chipboard, MDF shets and plywood boards
  - Steel panels
  - Plastic boards
  - Hollow blocks made from concrete

- **Also suitable for drill holes hitting solid materials, such as:**
  - Concrete
  - Wood

Test mark

fischer NYLON QUALITY

GLASS FIBRE POWER

Product family

DUOline

Applications

Applications

Kitchen cabinets

Wall cabinets

Washbasins

Handrails

Wardrobes

Radiators

Lamps

Mirrors

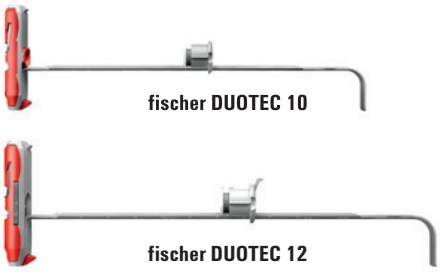
Shelves

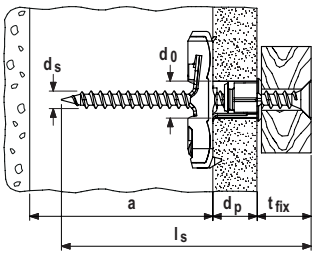
Pictures

Tv consoles

Hanging baskets

Range

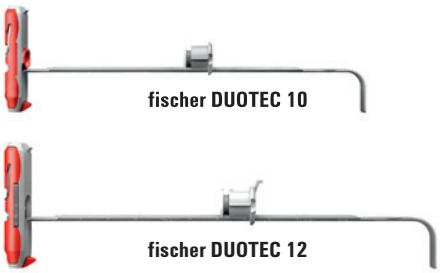


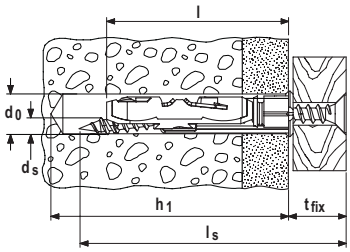


Technical data for board materials

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	9,5	55	40	4,5 - 5	$\geq d_p + t_{fix} + 20$	50
fischer DUOTEC 10 S	537259 [1]	10	9,5	55	40	5	70	25
fischer DUOTEC 10 S PH	539025 [2]	10	9,5	55	40	5	70	25
fischer DUOTEC 12	542796	12	9,5	55	50	5-6 / M6	$\geq d_p + t_{fix} + 20$	10
fischer DUOTEC 12 S PH	542797 [3]	12	9,5	55	50	M6	70	10
fischer DUOTEC 12 RH	542798 [4]	12	9,5	55	50	5,5	55	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 for solid materials

Item	Art.-No.	Drill hole diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Screw diameter d_s [mm]	Screw length l_s [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Sales unit [pcs]
fischer DUOTEC 10	537258	10	$l_s + 10$	4,5 - 5	$\geq t_{fix} + 60$	50	$l_s - 60$	50
fischer DUOTEC 10 S	537259	10	80	5	70	50	10	25
fischer DUOTEC 10 S PH	539025	10	80	5	70	50	10	25
fischer DUOTEC 12	542796	12	80	5-6 / M6	$\geq t_{fix} + 70$	58	$l_s - 70$	10
fischer DUOTEC 12 S PH [1]	542797	–	–	–	–	–	–	10
fischer DUOTEC 12 RH	542798	12	80	5,5	55	58	–	10

[1] Installation with panhead screws in solid construction materials not possible.

Loads

Nylon toggle fischer DUOTEC

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

Type			fischer DUOTEC 10				fischer 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'	fb ≥ 8 N/mm²	[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	fb ≥ 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.

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- The software is based on international design standards (ETAG 001 and EC2, such as EC1, EC3 and EC5), including the national application documents. All common force and measurement units are available.
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