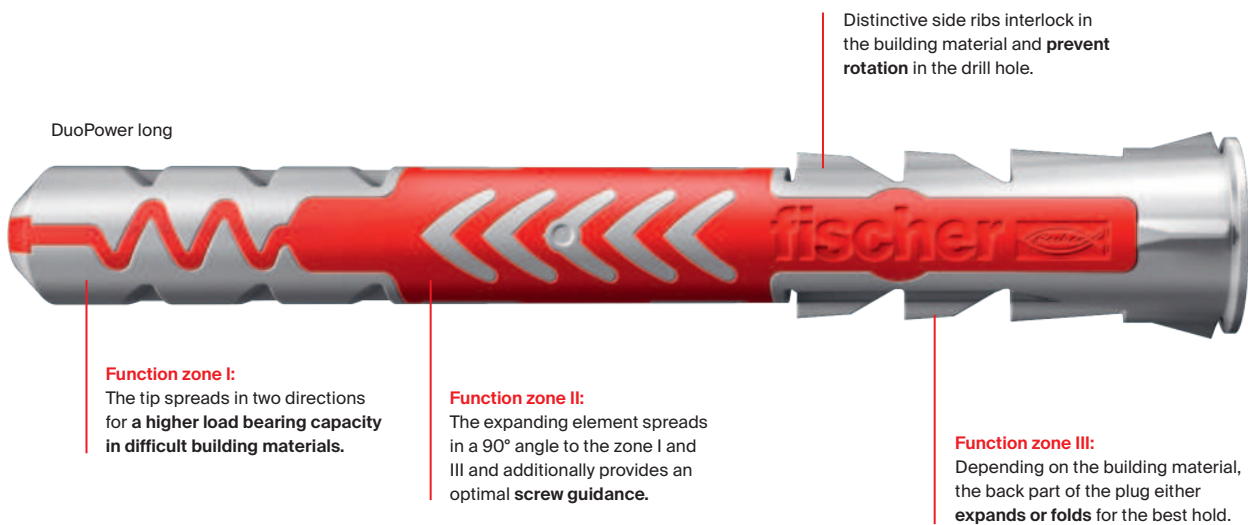
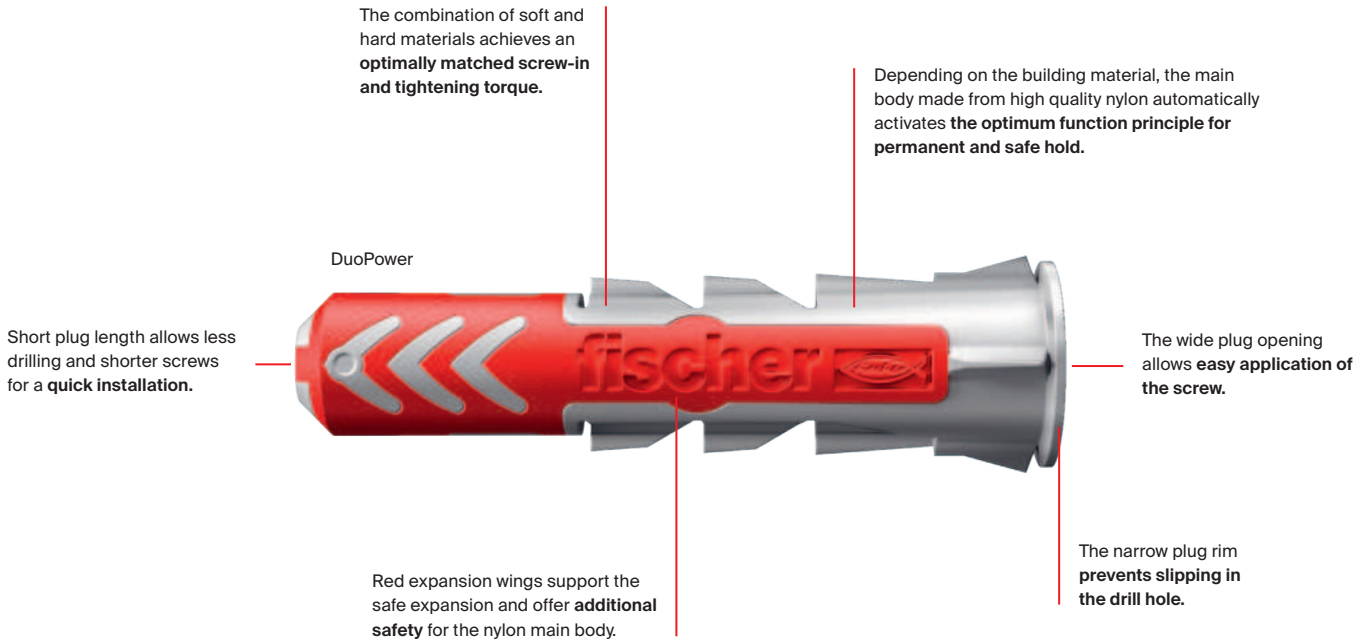


**fischer** 

**DuoPower.**  
The Duo of Power  
and Intelligence.



# Simply clever, the combination of two components guarantees even more performance.



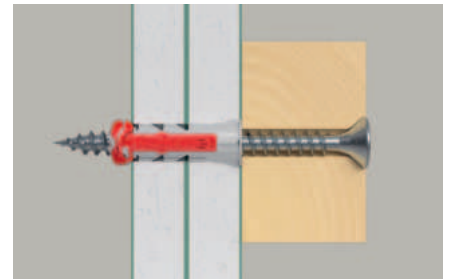
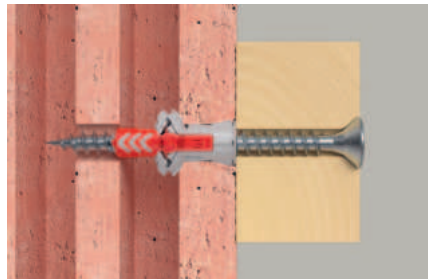
# Advantages and functioning.

## Your advantages at a glance:

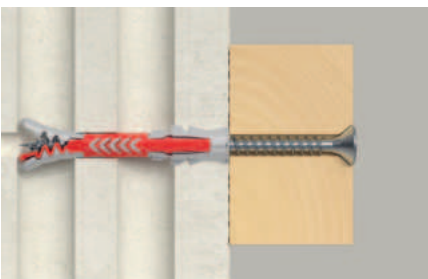
- The plug activates the optimum functional principle depending on the substrate. It expands in solid building materials, folds in perforated building materials and knots in panel building materials.
- Due to the two-component technology, the DuoPower has a higher expansion volume for a perfectly matched insertion and tightening torque.
- The nylon plug is suitable for all common building materials and thus enables universal use.
- The long version of the DuoPower is particularly suitable for fastening in perforated building materials, in aerated concrete and for bridging plaster.
- The large anchoring depths of the long version provide even more load-bearing capacity.
- The European Technical Assessment (ETA) for certain DuoPower dimensions guarantees tested safety for safety-relevant applications in concrete and masonry (see load table).

## Functioning

- The DuoPower is suitable for push-in and push-through installation.
- The red expansion wings support secure expansion and provide additional safety to the grey main body.
- The required screw length results from plug length + attachment thickness + screw diameter.
- The plug can be used with wood, chipboard and hanger bolts.
- For panel building materials, the threadless part of the screw must not be longer than the thickness of the attachment part.
- The fischer DuoPower ETA 10x50 with safety screw is approved for concrete and masonry. The DuoPower ETA 8x40 with FPF II and safety screw are approved for concrete.



Intelligent self-activating functions depending on the substrate.



Long versions with additional bite in problematic building materials.

## Features



ETA-22/0512, for multiple non-structural systems in concrete and masonry



# Substrates and installation.

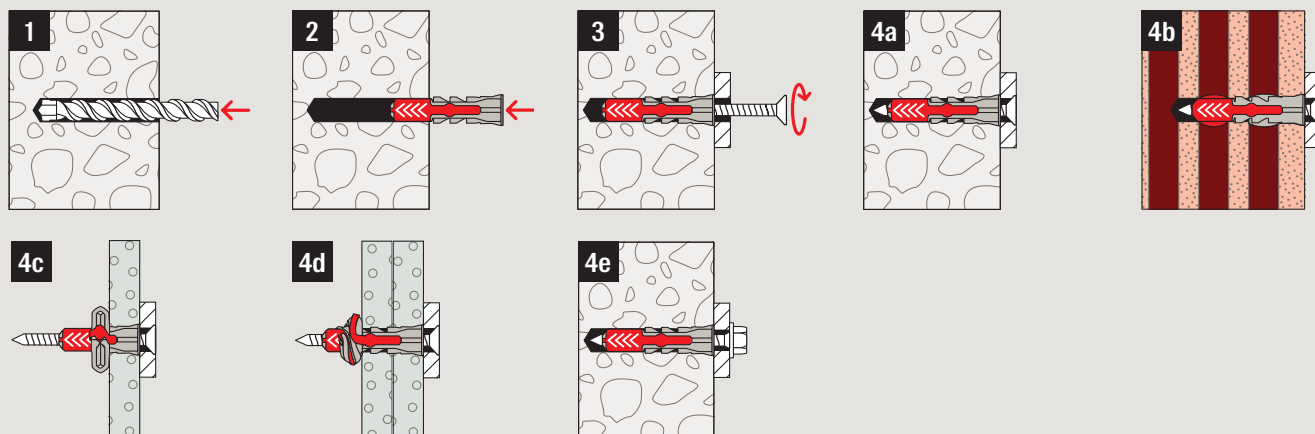
## Recommendation



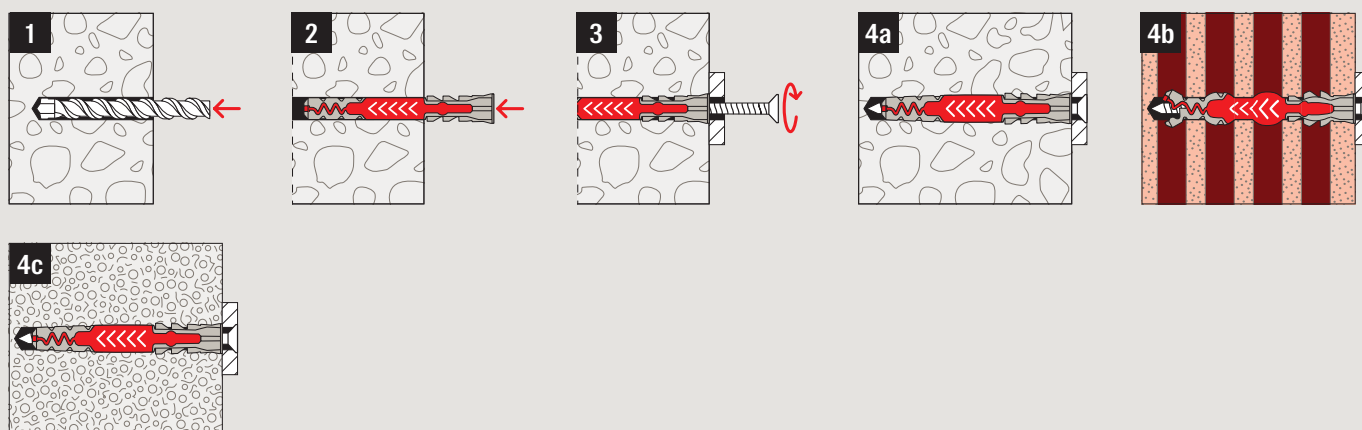
Suitable for concrete <sup>1)</sup>, solid brick <sup>2)</sup>, solid sand-lime brick <sup>2)</sup>, vertically perforated brick <sup>2)</sup>, hollow brick ceilings, perforated sand-lime brick, hollow block and solid block of lightweight concrete, aerated concrete, natural stone, plasterboard and gypsum fiberboard, solid gypsum board, gypsum board, chipboard.

1) Approved for DuoPower ETA 8x40 with safety screw and FPF II and DuoPower ETA 10x50 with safety screw  
 2) Approved for DuoPower ETA 10x50 with safety screw

## Installation DuoPower



## Installation DuoPower long



# Applications



Kitchen cabinets



Wall shelves



TV consoles



Consoles



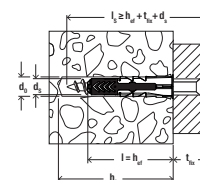
Pipe fastenings



Radiators



# Assortment



## Technical data

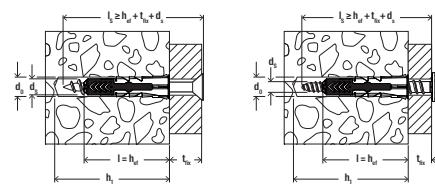
### DuoPower



DuoPower DuoPower long

Item	Without screw		With screw		Drill hole diameter $d_0$ [mm]	Min. drill hole depth $h_1$ [mm]	Min. panel thickness $d_p$ [mm]	Min. bolt penetration $l_{E,min}$ [mm]	Anchor length $l$ [mm]	Screws $d_s / d_s \times l_s$ [mm]	Drive	Max. fixture thickness $t_{fix}$ [mm]	Sales unit [pcs]
	Item No.	Item No.											
DuoPower 5 x 25	555005	-	5	35	5	35	12,5	29	25	3 - 4	-	-	100
DuoPower 6 x 30	555006	-	6	40	6	40	12,5	35	30	4 - 5	-	-	100
DuoPower 6 x 50	538240	-	6	60	6	60	12,5	55	50	4 - 5	-	-	100
DuoPower 8 x 40	555008	-	8	50	8	50	12,5	46	40	4,5 - 6	-	-	100
DuoPower 8 x 65	538241	-	8	75	8	75	2x 12,5	71	65	4,5 - 6	-	-	50
DuoPower 10 x 50	555010	-	10	70	10	70	12,5	58	50	6 - 8	-	-	50
DuoPower 10 x 80	538242	-	10	100	10	100	-	88	80	6 - 8	-	-	25
DuoPower 12 x 60	538243	-	12	80	12	80	-	70	60	8 - 10	-	-	25
DuoPower 14 x 70	538244	-	14	90	14	90	-	82	70	10 - 12	-	-	20
DuoPower 5 x 25 S	-	555105	5	40	5	40	12,5	29	25	3,5 x 35	PZ2	6	50
DuoPower 6 x 30 S	-	555106	6	45	6	45	12,5	35	30	4,5 x 40	PZ2	5	50
DuoPower 6 x 30 S PH TX	-	545838 <sup>1)</sup>	6	45	6	45	12,5	35	30	4,5 x 40	TX 20	5	100
DuoPower 6 x 50 S	-	538245	6	65	6	65	12,5	55	50	4,5 x 60	PZ2	15	50
DuoPower 8 x 40 S	-	555108	8	65	8	65	12,5	45	40	5,0 x 55	PZ2	10	50
DuoPower 8 x 65 S	-	538246	8	85	8	85	2x 12,5	70	65	5,0 x 80	PZ2	10	25
DuoPower 10 x 50 S	-	555110	10	74	10	74	12,5	57	50	7,0 x 69	SW 13/TX 40	12	25
DuoPower 10 x 80 S	-	538247	10	112	10	112	-	87	80	7,0 x 107	SW 13	20	10
DuoPower 12 x 60 S	-	538248	12	85	12	85	-	68	60	8,0 x 80	SW 13	12	10
DuoPower 14 x 70 S	-	538249	14	100	14	100	-	80	70	10,0 x 95	SW 17	15	8

<sup>1)</sup> DuoPower S PH TX with chipboard screw panhead



## Technical data

### DuoPower ETA



DuoPower FPF II

DuoPower Safety screw

Item	Item No.	Approval ETA	Drill hole diameter		Min. drill hole depth <sup>1)</sup> $h_1$ [mm]	Min. bolt penetration $l_{E,min}$ [mm]	Anchor length $l$ [mm]	Screw $d_s / d_s \times l_s$ [mm]	Drive	Max. fixture thickness <sup>2)</sup> $t_{fix}$ [mm]	Sales unit [pcs]
			$d_0$ [mm]	$d_0$ [mm]							
DuoPower ETA 8 x 40 FPF II <sup>3)</sup>	564789	●	8	69	46	46	40	6,0 x 60	TX 30	14	50
DuoPower ETA 8 x 40 Safety screw	564790	●	8	76	46	46	40	6,0 x 66,5	SW 10/TX 30	20	50
DuoPower ETA 10 x 50 Safety screw	564792	●	10	78	57	57	50	7,0 x 69	SW 13/TX 40	12	50

<sup>1)</sup> Min. drill hole depth  $h_1$  [mm] =  $l_s - t_{fix} + 10$

<sup>2)</sup> Max. fixture thickness  $t_{fix}$  [mm] =  $l_s - l - d_s$

<sup>3)</sup> Power Fast II screw

# Loads

Universal plug DuoPower											
Highest recommended loads <sup>1)</sup> for a single anchor. The given loads are valid for wood screws with the specified diameter.											
Type		5 x 25	6 x 30	6 x 50	8 x 40	8 x 65	10 x 50	10 x 80	12 x 60	14 x 70	
Wood screw diameter	[mm]	4	5	5	6	6	8	8	10	12	
Min. edge distance concrete	$c_{min}$ [mm]	30	35	35	50	50	65	65	80	100	
Recommended loads in the respective base material $F_{rec}$ <sup>2)</sup>											
Concrete	$\geq C20/25$	[kN]	0.40	0.95	1.65	1.10	2.30	2.15	4.20	3.30	5.30
Solid brick	$\geq Mz 12$	[kN]	0.30	0.50	0.55	0.62	0.69	1.20	1.45	1.30	1.35
Solid sand-lime brick	$\geq KS 12$	[kN]	0.50	1.00	1.60	1.25	2.25	2.20	3.85	2.80	4.50
Aerated concrete	$\geq AAC 2 (G2)$	[kN]	0.05	0.10	0.15	0.10	0.16	0.20	0.30	0.24	0.35
Aerated concrete	$\geq AAC 4 (G4)$	[kN]	0.25	0.38	0.55	0.42	0.60	0.60	1.10	1.00	1.45
Vertically perforated brick	$\geq Hlz 12 (\rho \geq 0.9 \text{ kg/dm}^3)$	[kN]	0.13	0.15	0.17	0.25	0.40	0.25	0.40	0.35	0.40
Perforated sand-lime brick	$\geq KSL 12 (\rho \geq 1.6 \text{ kg/dm}^3)$	[kN]	0.40	0.60	0.60	0.70	1.00	0.70	2.00	0.75	1.50
Gypsum block	$(\rho \geq 0,9 \text{ kg/dm}^3)$	[kN]	0.10	0.18	0.37	0.25	0.50	0.35	0.65	0.50	0.50
Gypsum fibreboard	12.5 mm	[kN]	0.24	0.33	0.35	0.35	-	0.50	-	-	-
Gypsum plasterboard	12.5 mm	[kN]	0.12	0.15	0.15	0.15	-	0.15	-	-	-
Gypsum plasterboard	2 x 12.5 mm	[kN]	0.13	0.15	0.24	0.20	0.32	0.30	-	-	-
Mattone Forato Typ F8		[kN]	0.30	0.30	-	0.25	-	0.25	-	-	-
Tramezza Doppio UNI 19		[kN]	0.15	0.15	0.23	0.15	0.30	0.20	0.52	0.35	0.35
Sepa Parpaing		[kN]	0.30	0.45	0.25 <sup>3)</sup>	0.45	0.45 <sup>3)</sup>	0.45	0.45 <sup>3)</sup>	0.60 <sup>3)</sup>	0.60 <sup>3)</sup>

<sup>1)</sup> Required safety factors are considered.

<sup>2)</sup> Valid for tensile load, shear load and oblique load under any angle.

<sup>3)</sup> Load determination on plastered wall.

Universal plug DuoPower										
Permissible loads <sup>1)2)3)</sup> of a single anchor as part of a multiple fixing of non-structural systems.										
For the design the complete current assessment ETA-22/0512 of 04.11.2022 has to be considered.										
Type			DuoPower ETA 8x40 Power Fast II	DuoPower ETA 8x40 special screw	DuoPower ETA 10x50 special screw					
Anchor diameter	$d_0$	[mm]	8	8	10					
Screw diameter	$d$	[mm]	6	6	7					
Anchorage depth	$h_{nom}$	[mm]	40	40	50					
Anchorage in concrete $\geq C16/20$ <sup>4)</sup>										
Permissible tensile load $N_{perm}$		[kN]	0.12	0.79	0.79					
Permissible shear load $V_{perm}$	zinc coated screws (gvz)	[kN]	3.10	4.23	5.98					
	stainless steel screw (R)	[kN]	-	3.93	5.98					
Minimum member thickness	$h_{min}$	[mm]	150	150	150					
Characteristic edge distance	$c_{cr,N}$	[mm]	55	90	80					
Characteristic spacing	$a$ resp. $s_{cr,N}$	[mm]	15	50	50					
Minimum spacing	$s_{min}$	[mm]	50	50	50					
with an edge distance	$c \geq$	[mm]	100	100	100					
Minimum edge distance	$c_{min}$	[mm]	50	80	80					
with a spacing	$s \geq$	[mm]	100	160	160					
Anchorage in masonry										
Permissible load <sup>5)</sup> $F_{perm}$ in solid brick	$\geq Mz 10/2; NF$	[kN]	-	-	0.40	-				
	$\geq Mz 16/2; NF$	[kN]	-	-	0.57	-				
	$\geq Mz 20/2; NF$	[kN]	-	-	0.71	-				
Permissible load <sup>5)</sup> $F_{perm}$ in solid sand-lime brick	$\geq KS 8/2; 2DF$	[kN]	-	-	0.60	0.70 <sup>6)</sup>				
	$\geq KS 12/2; 2DF$	[kN]	-	-	0.60	0.70 <sup>6)</sup>				
Permissible load <sup>5)</sup> $F_{perm}$ in perforated clay brick	$\geq Hlz 10/1.2; 9 DF$	[kN]	-	-	0.17					
	$\geq Hlz 12/1.2; 9 DF$	[kN]	-	-	0.21					
Minimum member thickness	$h_{min}$	[mm]	-	-	115					
Minimum spacing (single anchor)	$a_{min}$	[mm]	-	-	250					
Minimum spacing (anchor group)	$s_{min}$	[mm]	-	-	50					
Minimum edge distance (anchor group)	$c_{min}$	[mm]	-	-	80					

<sup>1)</sup> Valid for zinc coated (gvz) Power Fast II and special screw and as well as for special screw made of stainless steel (R). For exterior use of the zinc coated screws measures against incoming humidity have to be taken.

<sup>2)</sup> The required partial safety factors for material resistance as well as a partial safety factor for load actions  $\gamma_L = 1.4$  are considered. As a single anchor counts e.g. an anchor with a minimum spacing  $a$  according to Annex B 2 or B 3 of the assessment.

<sup>3)</sup> Valid for temperatures in the substrate up to +24 °C (resp. short term up to +40 °C).

<sup>4)</sup> For values in concrete C12/15 see assessment.

<sup>5)</sup> Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see assessment. Bulk density of stone in [kg/dm<sup>3</sup>] and minimum compressive strength in [N/mm<sup>2</sup>] according to EN 771.

<sup>6)</sup> Only valid for  $c_{1min}$  110 mm and  $c_{2min}$  165 mm.

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