



fischer greenline

The first range of fixing products with renewable resources.



fischer 
innovative solutions
greenline

Environmentally friendly and secure.

Sustainable building.

- With the introduction of its greenline products, fischer is the first manufacturer worldwide to offer a range of bio-based fixing systems. We are adapting to the demands of processors and builders who greatly value sustainability when building and renovating, even when it comes to installation.



Grown naturally.

- All greenline products are produced with at least 50 % renewable raw materials. These do not compete with food and feed products or with corresponding cultivation areas. The regenerative material percentage is always confirmed by independent testing and certification by the DIN CERTCO / TÜV Rheinland. All products are in the "BIOBASED 50 - 85 %" class.



Durably secure.

- We do not make any compromises when it comes to the security of greenline products. The plastic fixings have the same performance properties and load capacity as their grey-coloured originals. And they are, of course, as durable as the originals are. With 100 % fischer nylon quality!



Ecological proof of performance.

- The GREEN installation mortar has an Environmental Product Declaration from the Institute of Building and Environment (IBU) and thereby a data basis for ecological building rating. Furthermore, it has been classified in the best possible emission class: A+ "very low emission" for volatile substances as per the French VOC directive. Ecological advantages that also pay dividends in competition.



The product is certified as per the French directive (no. 2011-321 from 23/03/2011) on the labelling of building products for their indoor air emissions. The emissions are rated on a scale of A+ (very low emissions) to C (high emissions).

We take responsibility.

- For decades fischer has been actively practising environmental protection and taking on responsibility so that the environment remains intact for future generations. We have an environmental management system certified according to DIN ISO 14001 and are a member of the German Sustainable Building Council (DGNB).



For more information visit:
www.fischer.de/sustainability

Maximum performance, naturally!

The greenline product line has a green solution for every building material.

= safe and durable like the grey-coloured originals

+ environmentally friendly due to renewable resources

Green alternatives

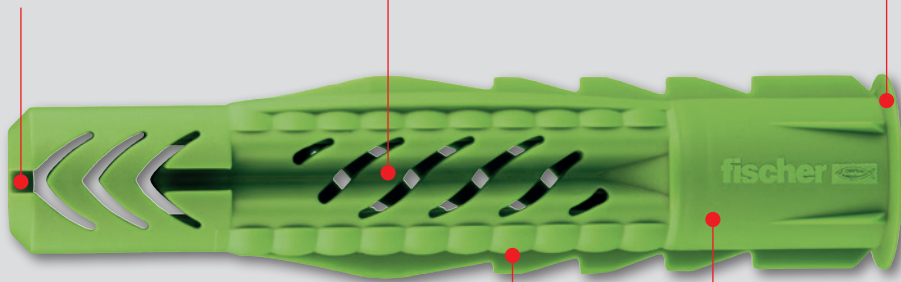
								
	Concrete	Solid brick	Perforated brick	Aerated concrete	Natural stone	Panel building materials	Gypsum plasterboard	Insulation panels
UX GREEN 	✓	✓	✓	✓	✓	✓	✓	
SX GREEN 	✓	✓	✓	✓	✓			
GK GREEN 							✓	
N GREEN 	✓	✓	✓	✓	✓			
GB GREEN 				✓				
FID GREEN 								✓
FIS GREEN 	✓	✓	✓	✓	✓			

fischer Universal plug UX GREEN. The nylon plug for all construction materials.

The tip of the plug expands and adjusts to different screw sizes.

The slanting connection bridges guarantee precise screw guidance.

The rim of the plug prevents it from falling deeper into the drill hole.



The serrated anti-rotation locks prevent rotation in the drill hole, even in "frayed" drill holes.

The integrated hammer-in stop prevents premature expansion e.g. push-through installation

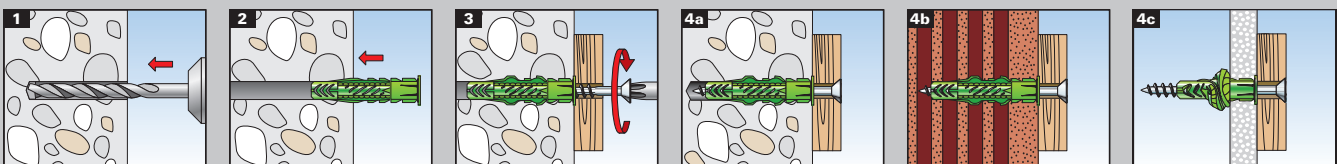
Functioning.

- Because of its rim, the universal plug is best suited for pre-positioned installation.
- When the screw is screwed-in, the UX GREEN expands in solid building materials and knots within the cavity.
- It can be used with wood screws and chipboard screws as well as spacing screws.

Your advantages at a glance:

- With its universal functioning principle - knotting in cavities and expanding in solid building materials - the UX GREEN adapts to every sub-surface.
- Whether in concrete, aerated concrete, gypsum plasterboard, solid or vertically perforated brick, the UX GREEN always finds a secure hold.
- The rim prevents falling deeper into the drill hole when the screw is screwed in.
- The plug has a low, and thus comfortable screw-in torque and a high fixed torque. This way the plug really "pulls".
- The UX GREEN is available in diameters from 6 to 12 mm.

Installation

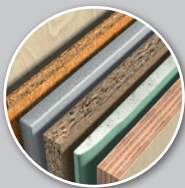
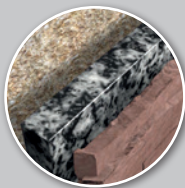
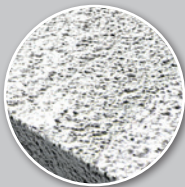


Applications.

Test mark



Recommendation

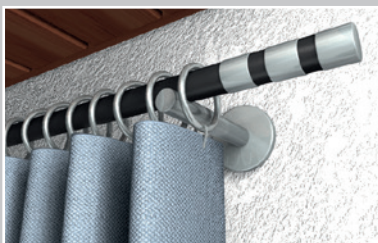


Suitable for:

- Concrete
- Gypsum plasterboard and gypsum fibreboards
- Vertically perforated brick
- Hollow lightweight concrete blocks
- Cavity floor slabs made of brick, concrete, etc.
- Perforated sand-lime brick
- Solid sand-lime brick
- Natural stone
- Aerated concrete
- Chipboard
- Solid panel made from gypsum
- Solid block made from lightweight concrete
- Solid brick

Typical anchoring solutions

Curtain rods



Shelves



- The universal plug UX GREEN can be used in a number of building materials.
- Typical applications are mounting pictures, lights, baseboards, lightweight wall cupboards, curtain rails, bathroom fittings, TV consoles and much more.

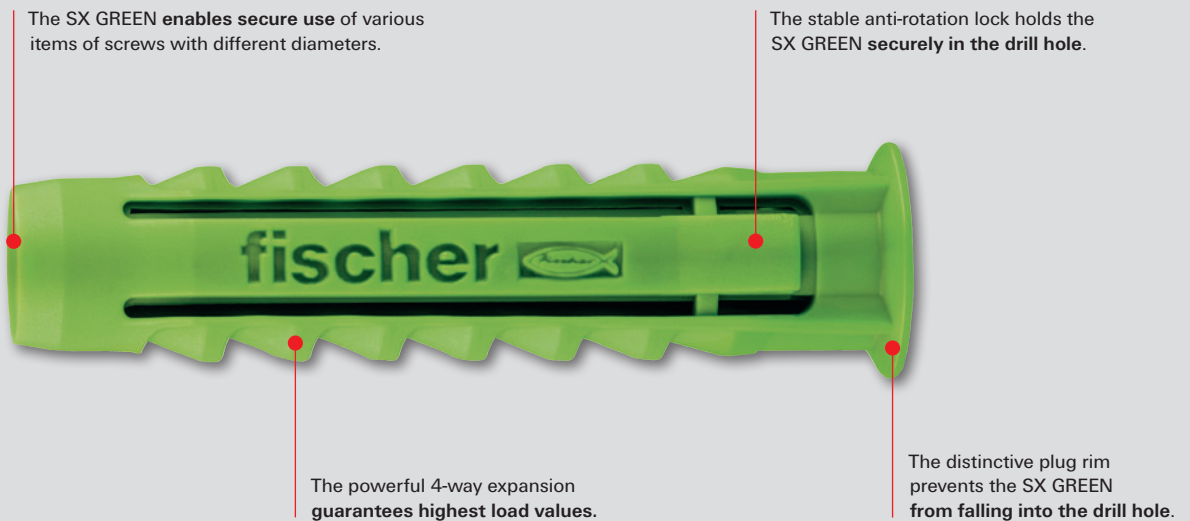
Outdoor lamps



Washbasins



fischer Expansion plug SX GREEN. The powerful nylon plug with 4-way expansion.



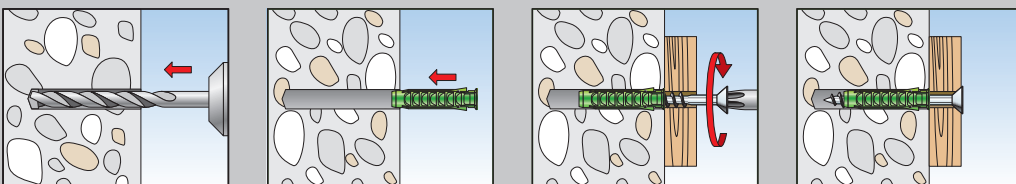
Functioning.

- The SX GREEN is suitable for pre-positioned and push-through installation.
- When screwing in the screw, the SX GREEN expands in four directions, thus providing a secure anchoring in the building material.
- Suitable for wood, chipboard and spacing screws.

Your advantages at a glance:

- The powerful 4-way expansion provides optimum force distribution in the building material and offers high load bearing capacities.
- The anti-rotation lock prevents the plug from rotating in the drill hole.
- The expansion-free plug neck prevents damage to tiles and plaster.
- Fast and easy push through mounting reduces installation time.
- The SX GREEN is available in diameters from 5 to 12 mm.

Installation

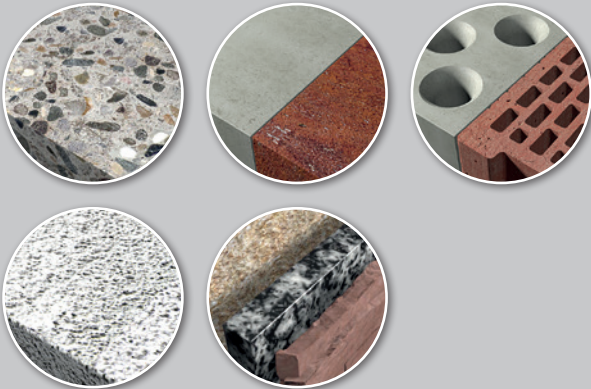


Applications.

Test mark



Recommendation



Suitable for:

- Concrete
- Vertically perforated brick
- Hollow lightweight concrete blocks
- Cavity floor slabs made of brick, concrete, etc.
- Perforated sand-lime brick
- Solid sand-lime brick
- Natural stone with dense structure
- Aerated concrete
- Solid panel made from gypsum
- Solid block made from lightweight concrete
- Solid brick

Typical anchoring solutions

Mirrors



Building technology



- The powerful 4-way expansion of the SX GREEN expansion plug provides high load values, particularly in concrete as well as in solid and perforated bricks.
- Typical applications are mounting lights, coat racks, small wall shelves, mirror cabinets, letterbox units, trellises, folding shutters and much more.

TV consoles



Sanitary ceramics

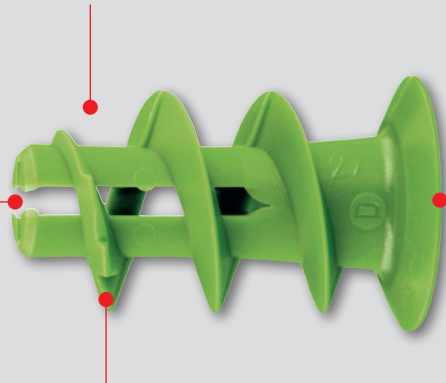


fischer gypsum plasterboard fixing GK GREEN

The fastest installation in gypsum plasterboard.

Thanks to its short plug length the GK GREEN can also be used with unknown board thickness and cavity depth.

The continuous groove provides a perfect fit and force transfer of the setting tool.



With the cross drive recess the GK GREEN can even be mounted and dismantled without screw-in tools.

The sharp, self-tapping threading enables a secure, interlocking connection with the building material.



incl. setting tool GKW

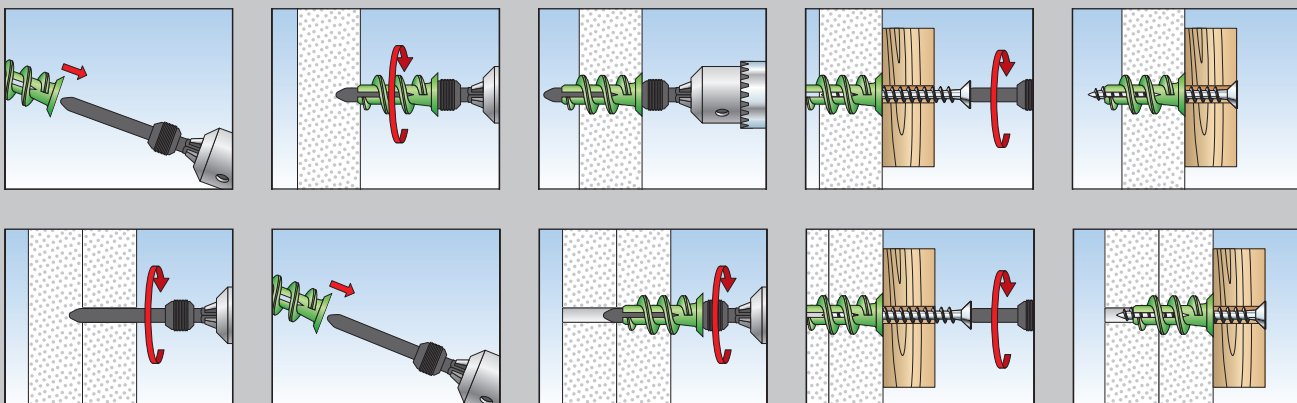
Functioning.

- The gypsum plasterboard fixing GK GREEN is suitable for pre-positioned installation.
- The gypsum plasterboard fixing GK GREEN is screwed flush into the gypsum plasterboard using the setting tool provided. Avoid manual and machine-aided overtightening.
- For board thickness greater than 15 mm, drill a hole first by using the setting tool.
- Not suitable for gypsum fibreboard and tiled plasterboard.
- Adapted for wood, self-tapping and chipboard screws of Ø 4.0 to 5.0 mm diameter.

Your advantages at a glance:

- The setting tool combines the functions of drilling and anchoring, completing the installation in one step.
- Fast and power-saving installation using a cordless or electric screwdriver.
- The sharp, self-tapping threading creates an interlocking connection which provides a high load capacity.
- The cross-drive recess in the head of the fixing means that the GK GREEN can also be uninstalled like a screw without using a setting tool.
- The GK GREEN can be used with various screws, hooks, and eyes making it very versatile in its applications.
- The GK GREEN, available in a length of 22 mm, enables installation in unknown cavity depths.

Installation

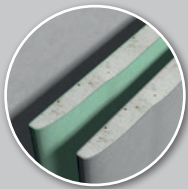


Applications.

Test mark



Recommendation



Suitable for:

- Gypsum plasterboard, single and double-planked

Typical anchoring solutions

Pictures



Skirting



Lamps



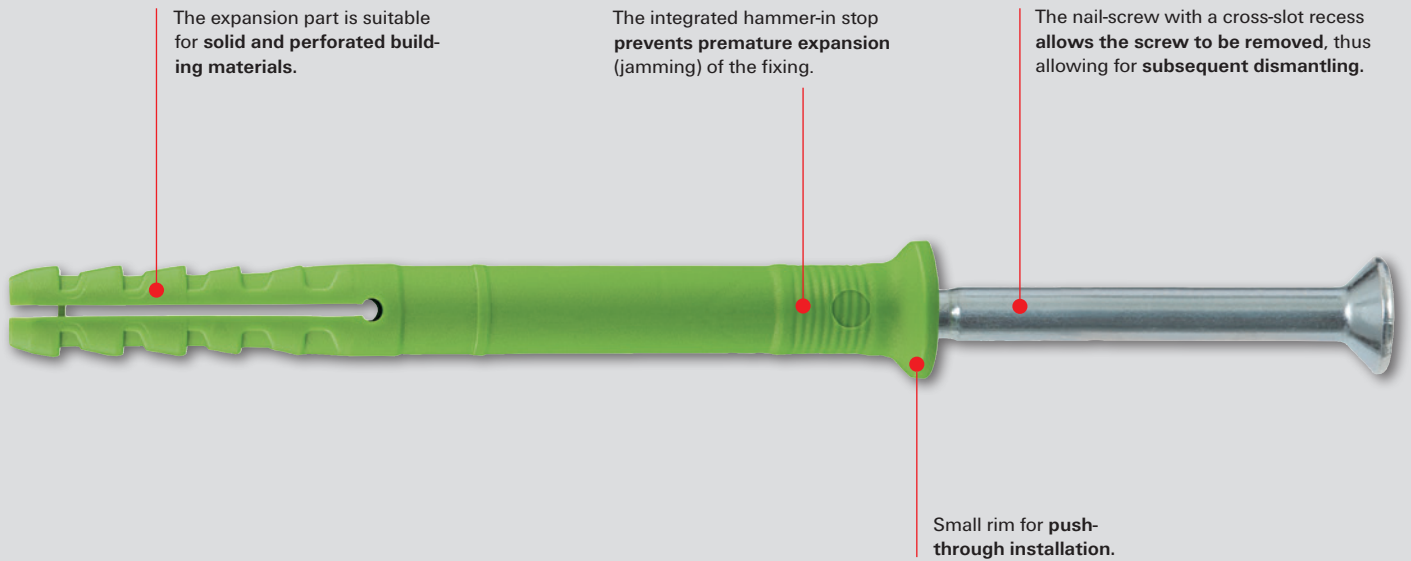
Wall decorations



- The gypsum plasterboard fixing GK GREEN is the economic solution for mounting single and double planked gypsum plasterboard panels.
- Typical applications are series mounting of pictures, lamps, electric installations, interior accessories and much more.

fischer Hammerfix N GREEN.

The hammer-in plug for simple, fast and economic installation.



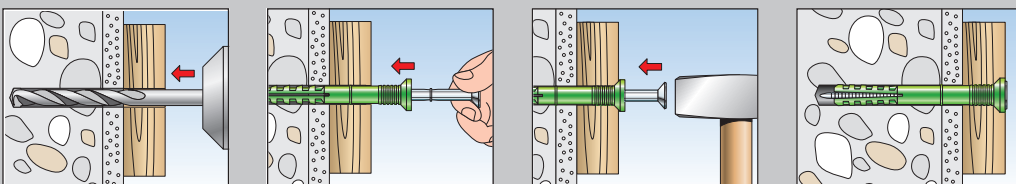
Functioning.

- The Hammerfix N GREEN is suitable for push-through installation.
- Rapid installation: drill, knock in - finished.
- When hammered in, the screw-nail causes the plug to expand in two directions, thus providing a secure anchoring in the building material.

Your advantages at a glance:

- The rapid push-through and hammer-set installation reduces the amount of work required and allows for an economic series installation.
- The integrated hammer-in stop prevents the plug from expanding prematurely enabling problem-free installation.
- Together with the cross-slot recess, the thread of the screw-nail allows the screw to be removed, thus allowing for subsequent dismantling.
- The N GREEN is available in sizes 6 x 40 to 8 x 120 mm.

Installation

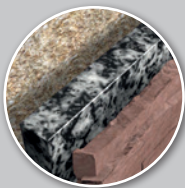
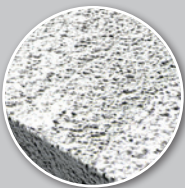


Applications.

Test mark



Recommendation



Suitable for:

- Concrete
- Solid sand-lime brick
- Solid brick
- Solid block made from lightweight concrete
- Perforated brick
- Aerated concrete
- Natural stone

Typical anchoring solutions

Wood substructures



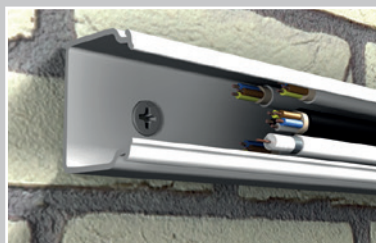
Cable clamps



Metal substructures

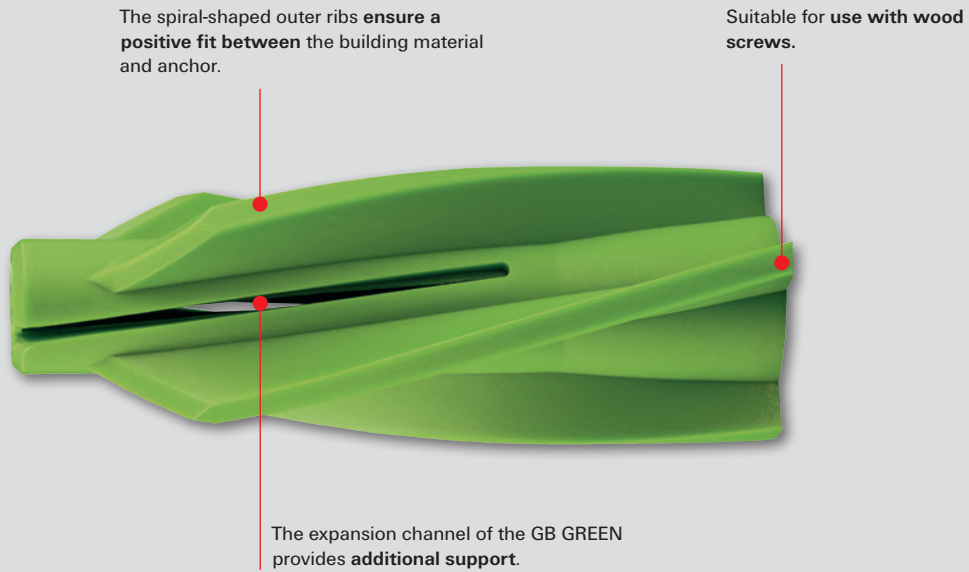


Cable ducts



- Ready to strike, quick and economic - that's the Hammerfix N GREEN. For series installation in concrete and solid building materials.
- Typical applications are mounting substructures made from wood and metal, wall fixtures and plaster profiles, foils, sheet metal, cable conduits, pipe clamps and much more.

fischer Aircrete anchor GB GREEN. Secure in aerated concrete.



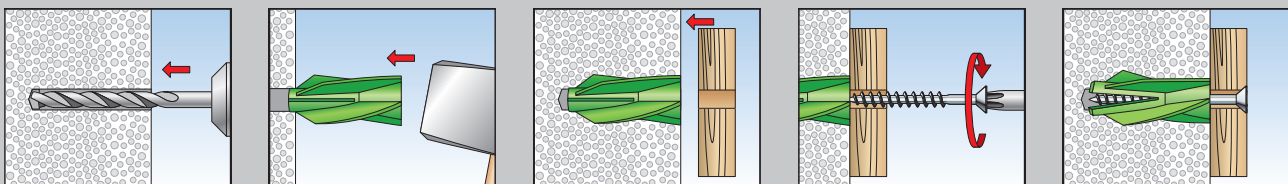
Functioning.

- The Aircrete anchor GB GREEN is suitable for pre-positioned installation.
- The spiral-shaped outer ribs cut a positive fit into the soft building material when knocked in, ensuring the best pressure distribution and load-bearing capacity.
- Can be used in unplastered aerated concrete.

Your advantages at a glance:

- The spiral-shaped outer ribs cut a positive fit into the building material ensuring a secure hold.
- Can be applied with a hammer - there is no need for special tools, thus saving time and money during installation.
- The GB GREEN is available in sizes 8 and 10.

Installation

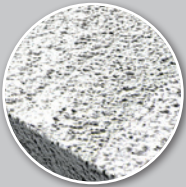


Applications.

Test mark



Recommendation



Suitable for:

- Aerated concrete with compressive strength 2 to 4 N/mm²
- Aerated concrete wall and ceiling boards with compressive strength 3.3 to 4.4 N/mm²

Typical anchoring solutions

Radiators



Pipes



- The aerated concrete anchor GB GREEN provides a secure hold in unplastered walls and ceiling boards made from aerated concrete.
- Typical applications are mounting suspended ceilings, cable routes, pipelines, façades and roof structures, canopy consoles and much more.

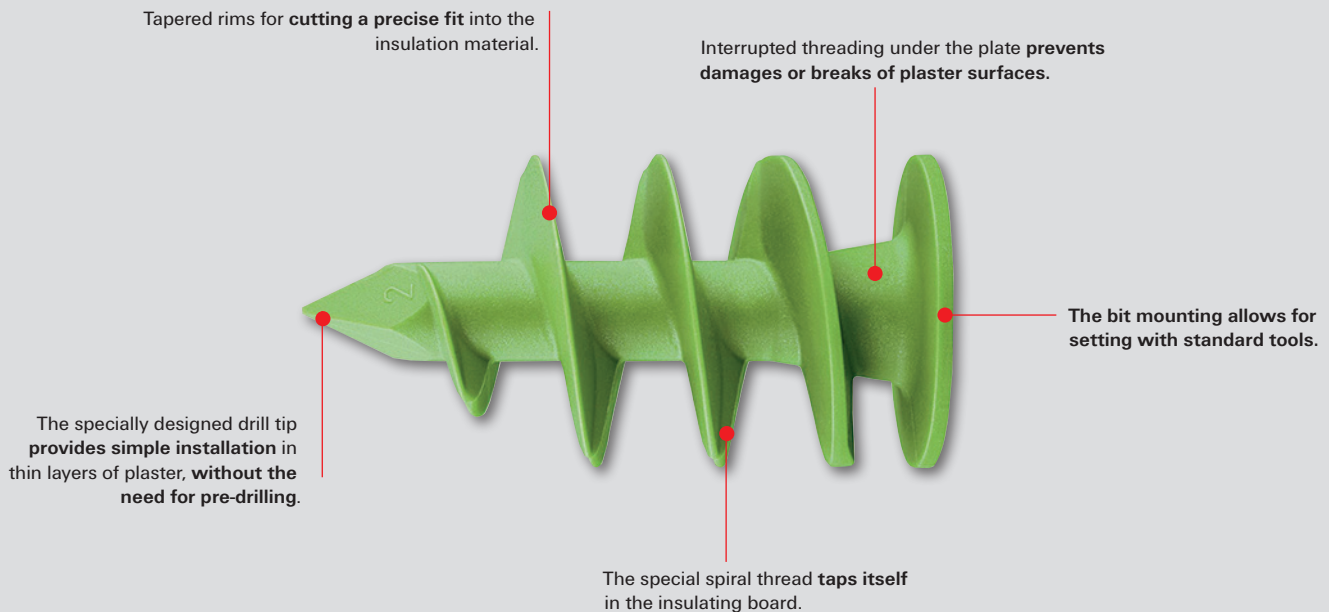
Suspended ceilings



Cable routes



fischer Insulation fixing FID GREEN. Thermal bridgefree installation in insulation materials.



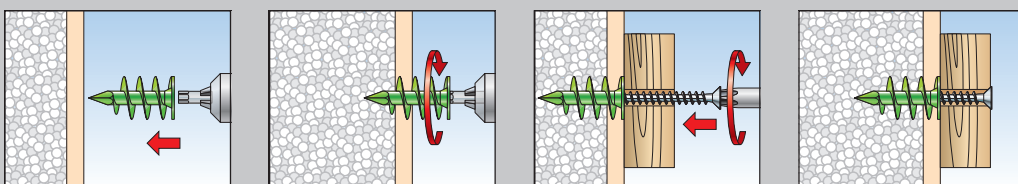
Functioning.

- With its strong drill tip the insulation fixing FID GREEN breaks through thin plaster layers and cuts a positive fit into the insulation panel with its specially shaped spiral thread.
- Water ingress in the insulation can be prevented by sealing the fixing after successful installation.
- Attachment parts can be easily attached with screws.
- Setting is possible using a cordless screwdriver or by hand.

Your advantages at a glance:

- Thermal bridgefree mounting when exclusively set in insulation material.
- Fast mounting, no pre-drilling. Can be used in unplastered and plastered hard-foam panels.
- Easy to set using a standard bit.
- Screw-in by hand or more conveniently with a cordless screwdriver.
- The FID GREEN is available in sizes 50 and 90 mm.

Installation

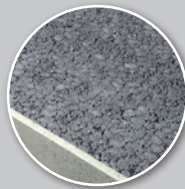
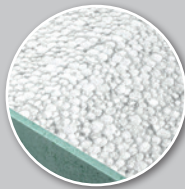


Applications.

Test mark



Recommendation



Suitable for:

- non-plastered, pressure-resistant insulating boards
- plastered, pressure-resistant insulating boards
- ETICS insulation panels

Typical anchoring solutions

Signs



Motion sensors



- The insulation fixing FID GREEN is the smart, thermal bridge-free mounting solution in unplastered and plastered, pressure-resistant insulation panels.
- Typical applications are mounting pictures, house numbers, outdoor lamps, mailboxes and much more.

Building technology



Outdoor lamps



fischer injection mortar FIS GREEN 300 T. Injection mortar.

Advantages at a glance

- The first injection mortar made from renewable resources! Biobased 50-85%, certified by DIN CERTCO / TÜV Rheinland.
- Suitable for many mountings in solid and perforated brick as well as concrete.
- For high loads. Can also be used outdoors.
- With EPD environmental declaration from the Institute for Construction and the Environment (Institut Bauen und Umwelt e. V.).
- Best-possible emission class A+ (according to French VOC directive).
- The product is non-hazardous and therefore does not display any hazardous substances symbols.
- Can be used with the extensive range of fischer accessories.



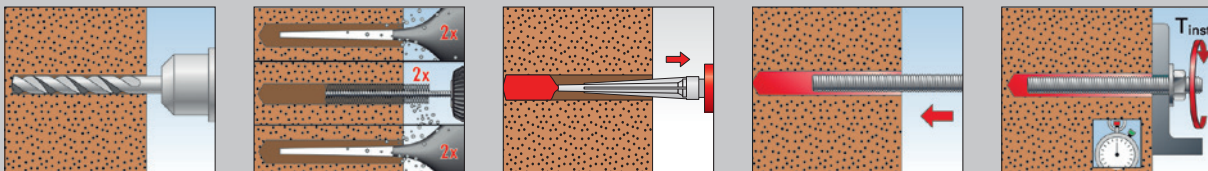
Anchor rod
FIS A

Internal threaded
anchor FIS E

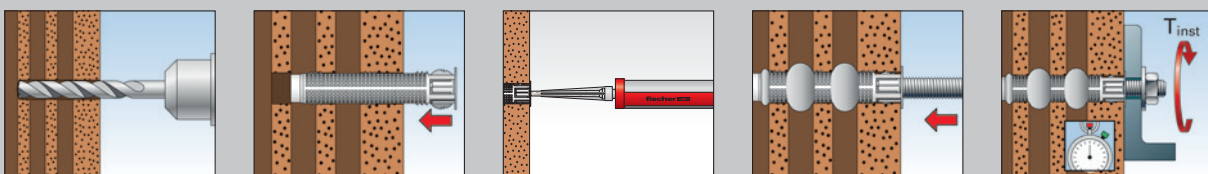
Injection anchor
sleeve FIS H K

Internal threaded
anchor RG MI

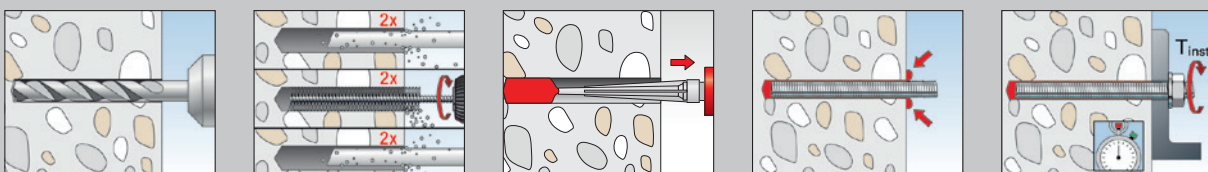
Application in solid brick



Application in perforated brick



Application in concrete



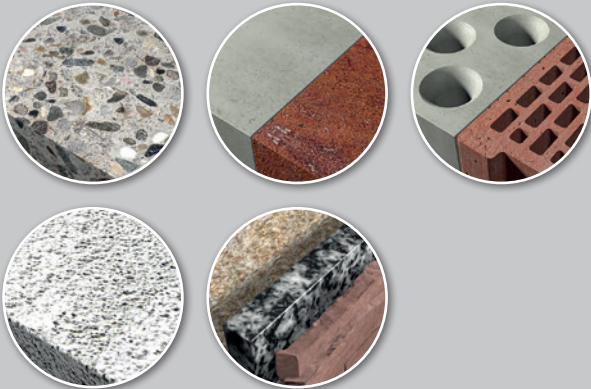
Applications.

Test mark



The product is certified as per French directive (no. 2011-321 from 23/03/2011) on the labelling of building products for their indoor air emissions. The emissions are rated on a scale of A+ (very low emissions) to C (high emissions).

Recommendation



Suitable for:

- reinforced/unreinforced concrete
- Solid and vertically perforated brick
- Sand-lime, solid and perforated bricks
- Hollow block made of normal-weight concrete
- Aerated concrete
- Natural stone

Typical anchoring solutions

Staircases



Building installation systems



- The injection mortar FIS GREEN is a two-component injection mortar with which high load requirements can be mounted in concrete, perforated and solid brick both indoors and outdoors.
- Typical applications are mounting kitchen and plumbing components, wood structures, gates, outdoor facilities, satellite systems and much more.

Outdoor facilities



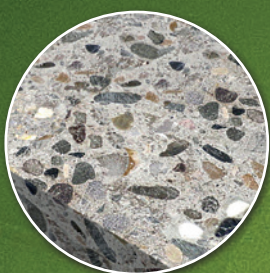
Garden grounds



Selection aid

Injection mortar FIS GREEN accessories.

Concrete



Dispenser unit KPM 2



+

Injection mortar
FIS GREEN 300 T



+

Injection anchor rod
FIS A

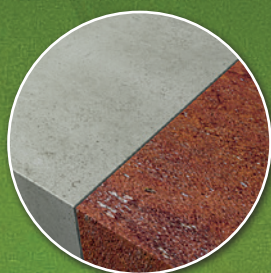


or

Internal threaded anchor
RG M I



Solid brick



Dispenser unit KPM 2



+

Injection mortar
FIS GREEN 300 T



+

Injection anchor rod
FIS A

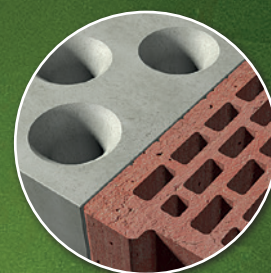


or

Internal threaded anchor
FIS E



Perforated building materials.



Dispenser unit KPM 2



+

Injection mortar
FIS GREEN 300 T



+

Injection anchor sleeve
FIS H K



+

Injection anchor rod FIS A



or

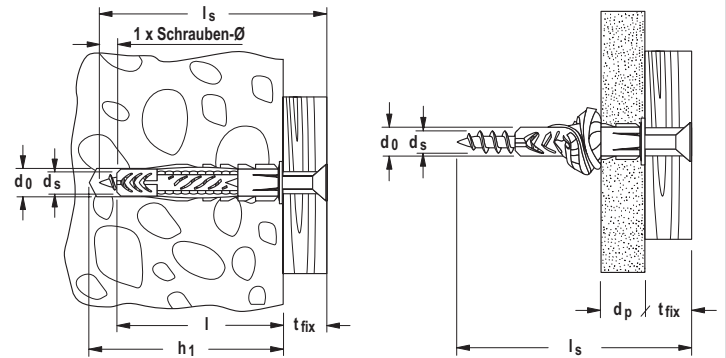
Internal threaded anchor FIS E



Range.



Universal plug **UX GREEN R** - with rim



UX GREEN R

Item	UX Art. no.	Nominal drill hole diameter d ₀ [mm]	Min. drill hole depth h ₁ [mm]	min. panel thickness d _p [mm]	Anchor length l [mm]	Chipboard/ wood screws d _s / d _s x l _s [mm]	max. fixture thickness t _{fix} [mm]	Sales unit [pcs]
UX GREEN 6 x 35 R	518885	6	45	9.5	35	4 - 5	–	40
UX GREEN 6 x 50 R	524855	6	60	9.5	50	4 - 5	–	40
UX GREEN 8 x 50 R	518886	8	60	9.5	50	4.5 - 6	–	40
UX GREEN 10 x 60 R	518887	10	75	12.5	60	6 - 8	–	20
UX GREEN 12 x 70	524858	12	85	–	70	8 - 10	–	18



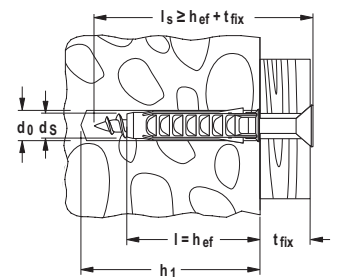
Expansion plug **SX GREEN** - with rim



Expansion plug **SX GREEN**
- larger anchoring depth, without rim



Expansion plug **SX GREEN S**
- with rim and screw



SX GREEN

Item	SX with rim Art. no.	SX with larger anchoring depth, without rim Art. no.	SX with rim and screw Art. no.	Nominal drill hole diameter d ₀ [mm]	Min. drill hole depth h ₁ [mm]	Anchor length l [mm]	max. fixture thickness t _{fix} [mm]	Chipboard/ wood screws d _s / d _s x l _s [mm]	Sales unit [pcs]
SX GREEN 5 x 25	524859	–	–	5	35	25	–	3 - 4	90
SX GREEN 6 x 30	524860	–	–	6	40	30	–	4 - 5	90
SX GREEN 6 x 30	–	–	524866	6	40	30	10	4.5 x 40	45
SX GREEN 6 x 50	–	524861	–	6	60	50	–	4 - 5	90
SX GREEN 8 x 40	524862	–	–	8	50	40	–	4.5 - 6	90
SX GREEN 8 x 40	–	–	524867	8	50	40	20	5 x 60	45
SX GREEN 8 x 65	–	524863	–	8	75	65	–	4.5 - 6	45
SX GREEN 10 x 50	524864	–	–	10	70	50	–	6 - 8	45
SX GREEN 12 x 60	524865	–	–	12	80	60	–	8 - 10	20

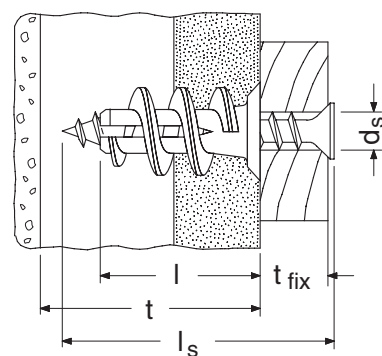
Range.



Gypsum plasterboard fixing **GK GREEN**



Gypsum plasterboard fixing **GK GREEN S**



GK GREEN

Item	Art. no.	Anchor length l [mm]	min. thickness to first supporting layer t [mm]	max. fixture thickness t _{fix} [mm]	screw d _s x l _s [mm]	Drive	Sales unit [pcs]
GK GREEN ^{1) 2)}	524868	22	25	–	4.0 - 5.0 x L _s	–	90
GK GREEN S ^{1) 3)}	524869	22	25	13	4.5 x 35	PZ2	45

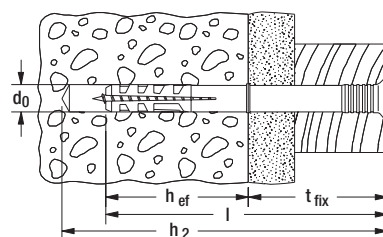
¹⁾ Includes a setting and insertion tool GKW.

²⁾ Min. screw length = length of plug 22 mm + thickness of building component.

³⁾ Supplied with plasterboard screws.



The Hammerfix **N GREEN** with countersunk head and electro-galvanised screw-nail, pre-assembled



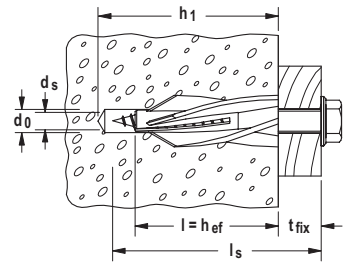
N GREEN

Item	Art. no.	Drill hole diameter d ₀ [mm]	Effective anchoring depth h _{ef} [mm]	Anchor length l [mm]	min. drill hole depth for through fixings h ₂ [mm]	max. fixture thickness t _{fix} [mm]	Sales unit [pcs]
N GREEN 6 x 40/10 S	524845	6	30	40	55	10	45
N GREEN 6 x 60/30 S	524847	6	30	60	75	30	45
N GREEN 6 x 80/50 S	524848	6	30	80	95	50	45
N GREEN 8 x 80/40 S	524849	8	40	80	95	40	45
N GREEN 8 x 100/60 S	524850	8	40	100	115	60	45

Range.



Aircrete anchor **GB GREEN**



GB GREEN

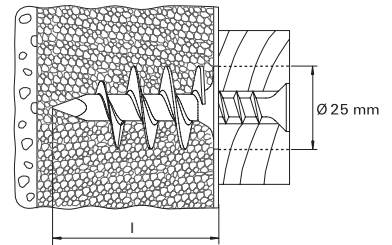
Item	Art. no.	Nominal drill bit diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Plug length = min. anchoring depth $l = h_{ef}$ [mm]	fischer safety screw d_s [mm]	Sales unit [pcs]
GB GREEN 8	524870	8	60	50	5	20
GB GREEN 10	524871	10	65	55	7	18



Insulation fixing **FID GREEN 50**



Insulation fixing **FID GREEN 90**



FID GREEN

Item	Art. no.	Anchor length l [mm]	min. bolt penetration [mm]	Chipboard/ wood screws d_s [mm]	Drive Item	Sales unit [pcs]
FID GREEN 50	524851	50	50	4.5 - 5.0	T40	45
FID GREEN 90	524852	90	90	6	6 mm / 6-kt	20



Injection mortar **FIS GREEN**

Injection mortar FIS GREEN

Item	Art. no.	Contents	Sales unit [pcs]
Injection mortar FIS GREEN 300 T	522223	1 x cartridge 300 ml + 2 x static mixer	12

Loads.

Universal plug UX GREEN.

Highest recommended loads¹ of an individual anchor. Load values apply to the use of wood screws with the specified screw diameters.

Model			UX GREEN 6 x 35 R	UX GREEN 6 x 50 R	UX GREEN 8 x 50 R	UX GREEN 10 x 60 R	UX GREEN 12 x 70
Screw diameter	Ø	[mm]	5	5	6	8	10
Recommended load in the respective building material $F_{empf}^{2)}$							
Concrete	≥ C20/25	[kN]	0.40	0.60	0.60	1.00	1.50
Solid brick	≥ Mz 12	[kN]	0.20	0.30	0.30	0.50	0.70
Perforated sand-lime brick	≥ KSL 12	[kN]	0.40	0.40	0.50	0.60	0.80
Vertically perforated brick	≥ Hlz 12	[kN]	0.20	0.20	0.20	0.20	0.30
Aerated concrete	≥ PB4, PP4 (G4)	[kN]	0.20	0.20	0.30	0.40	0.60
Gypsum plasterboard	12.5 mm	[kN]	0.10	0.10	0.10	0.10	-
Gypsum plasterboard	25 mm	[kN]	0.15	0.15	0.15	0.15	-
Gypsum fibreboard	(Fermacell)	[kN]	0.20	0.20	0.20	0.25	-
Gypsum wall board	ρ ≥ 0,9 kg/dm ³	[kN]	-	-	0.15	0.35	0.45

¹⁾ Contains safety factor 7.

²⁾ Applies to tension load, shear load and diagonal pull under each angle.

Expansion plug SX GREEN

Highest recommended loads¹ of an individual anchor. Load values apply to the use of wood screws with the specified screw diameters.

Model			SX GREEN 5 x 25	SX GREEN 6 x 30 SX GREEN 6 x 50	SX GREEN 8 x 40 SX GREEN 8 x 65	SX GREEN 10 x 50	SX GREEN 12 x 60
Screw diameter	Ø	[mm]	4	5	6	8	10
min. rim clearance concrete	c_{min}	[mm]	-	35	40	50	65
Recommended load in the respective building material $F_{empf}^{2)}$							
Concrete	≥ C20/25	[kN]	0.30	0.65	0.70	1.20	1.70
Solid brick	≥ Mz 12	[kN]	0.25	0.30	0.60	0.65	0.70
Solid sand-lime brick	≥ KS 12	[kN]	0.30	0.50	0.60	1.20	1.70
Aerated concrete	≥ PB2, PP2 (G2)	[kN]	0.03	0.03	0.04	0.09	0.14
Aerated concrete	≥ PB4, PP4 (G4)	[kN]	0.09	0.09	0.14	0.30	0.45
Vertically perforated brick	≥ Hlz 12 (ρ ≥ 1,0 kg/dm ³)	[kN]	0.07	0.07	0.17	0.17	0.26
Perforated sand-lime brick	≥ KSL 12	[kN]	0.17	0.30	0.35	0.30	0.35
Gypsum wall board	-	[kN]	-	-	0.26	0.37	1.00

¹⁾ Contains safety factor 7.

²⁾ Applies to tension load, shear load and diagonal pull under each angle.

Gypsum plasterboard fixing GK GREEN

Highest recommended loads¹ of an individual anchor. Load values apply to the use of chipboard screws with the specified screw diameters.

Model			GK GREEN
Plasterboard screw	Ø	[mm]	4.0 - 5.0
Recommended load in the respective building material $F_{empf}^{2)}$			
Gypsum plasterboard	9.5 mm	[kN]	0.07
Gypsum plasterboard	12.5 mm	[kN]	0.08
Gypsum plasterboard	2 x 12.5 mm	[kN]	0.11

¹⁾ Required safety factor taken into account.

²⁾ Applies to tension load, shear load and diagonal pull under each angle.

Loads.

Hammerfix N GREEN

Highest recommended loads¹ of an individual anchor. Load values apply to the use of the provided screw-nails with the specified screw diameter.

Model			N GREEN 6	N GREEN 8
Nail-screw diameter	Ø	[mm]	4	5
Recommended load in the respective building material F_{empf} ²⁾				
Concrete	≥ C20/25	[kN]	0.20	0.27
Solid brick	≥ Mz12	[kN]	0.18	0.24
Solid sand-lime brick	≥ KS12	[kN]	0.17	0.24
Solid block made from lightweight concrete	≥ V4	[kN]	0.12	0.15
Aerated concrete	≥ PB2	[kN]	0.04	0.05
Aerated concrete	≥ PB4	[kN]	0.10	0.13

¹⁾ Contains safety factor 4.

²⁾ Applies to tension load, shear load and diagonal pull under each angle.

Aircrete anchor GB GREEN

Highest recommended loads¹⁾ of an individual anchor in aerated concrete.

Load values apply to the use of fischer safety screws⁴ as per the selection chart.

Model			GB GREEN 8	GB GREEN 10
min. axial spacing ⁶⁾	s_{min}	[mm]	150 (100) ⁷⁾	200 (150) ⁷⁾
min. rim clearance ²⁾	c_{min}	[mm]	100 (75) ⁷⁾	150 (100) ⁷⁾
Rim distance to mortared joints ⁵⁾	c_{min}	[mm]	9	10
Minimum member thickness	h_{min}	[mm]	75	100
Anchoring depth	h_{ef} (h_v)	[mm]	50	55
Recommended load in the respective building material F_{empf} ³⁾				
Aerated concrete	PB2, PP2 (G2)	[kN]	0.20	0.25
Aerated concrete	P3,3 (GB3,3)	[kN]	0.30	0.50
Aerated concrete	≥ PB4, PP4, P4,4 (≥ G4, GB4,4)	[kN]	0.40	0.60

¹⁾ Required safety factor taken into account.

²⁾ Smallest possible rim clearance.

³⁾ Applies to tension load, shear load and diagonal pull under each angle with no additional bending.

⁴⁾ Gvz and A4.

⁵⁾ Only in aerated concrete masonry.

⁶⁾ Smallest possible axial spacing for simultaneous reduction of recommended load.

⁷⁾ Values in brackets apply to PB2, PP2 (G2).

Insulation fixing FID GREEN

Highest recommended loads¹ of an individual anchor. Load values apply to the use of chipboard screws with the largest diameter.

Model			FID GREEN 50	FID GREEN 90
Screw diameter	Ø	[mm]	4.5 - 5.0	6
Recommended load in the respective building material F_{empf} ²⁾				
Styrofoam	PS 15	[kN]	0.05	0.08
Styrofoam	PS 20	[kN]	0.09	0.14

¹⁾ Contains safety factor 5.

²⁾ Applies to tension load, shear load and diagonal pull under each angle.

Loads.

Injection mortar FIS GREEN - concrete

Injection system injection mortar FIS GREEN with fischer anchor rods FIS A / RG M.

Maximum load of an individual anchor in non-cracked normal concrete (concrete pressure zone) with strength C20/25 (~ B25).

Model	Effective anchoring depth $h_{ef}(\beta)$ [mm]	Anchor rod material	Installation torque T_{inst} [Nm]	Maximum load F_{max} [kN]	Required axial spacing for max. tension load without rim influence s_{cr} [mm]	Minimum component thickness h_{min} [mm]	min. axial spacing s_{min} [mm]	min. rim clearance c_{min} [mm]
M6	$h_{ef,min} = 60$	gvz., 5.8	≤ 5	1.3	180	100	40	40
		A4-70						
M8	$h_{ef,min} = 80$	gvz., 5.8	≤ 10	2.4	240	110	40	40
		gvz., 8.8						
		A4-70						
M10	$h_{ef,min} = 80$	gvz., 5.8	≤ 20	3.0	240	110	45	45
		gvz., 8.8						
		A4-70						
M12	$h_{ef,min} = 80$	gvz., 5.8	≤ 40	4.5	240	110	55	55
		gvz., 8.8						
		A4-70						
M16	$h_{ef,min} = 125$	gvz., 5.8	≤ 60	8.0	375	165	65	65
		gvz., 8.8						
		A4-70						

Injection mortar FIS GREEN - concrete

Injection system injection mortar FIS GREEN with internal threaded anchor RG M I.

Maximum loads of a single anchor in cracked normal concrete (concrete tensile zone) of strength C20/25(3) (~B25)

Model	Effective anchoring depth h_{ef} [mm]	Minimum component thickness h_{min} [mm]	Screw material	Installation torque T_{inst} [Nm]	Maximum load F_{max} [kN]	Required axial spacing for max. tension load without rim influence s_{cr} [mm]	min. axial spacing s_{min} [mm]	min. rim clearance c_{min} [mm]
RG M 8 I	90	120	gvz., 8.8	≤ 10	2.4	270	55	55
RG M 8 I A4			A4-70					
RG M 10 I	90	125	gvz., 8.8	≤ 20	3.0	270	65	65
RG M 10 I A4			A4-70					
RG M 12 I	125	165	gvz., 8.8	≤ 40	4.5	375	75	75
RG M 12 I A4			A4-70					

Loads.

Injection mortar FIS GREEN - solid brick masonry

Injection system injection mortar FIS GREEN with anchor rod FIS A³⁾ and/or internal threaded anchor FIS E⁴⁾.
Maximum loads⁵⁾ of an individual anchor in solid brick masonry.

Model	Strength class Anchoring base	Effective anchoring depth ³⁾	Minimum component thickness ⁵⁾	Installation torque ⁶⁾	Maximum load ²⁾	min. axial spacing single anchor	Axial spacing within group of anchors	Minimum axial spacing ¹⁾ within group of anchors	min. rim clearance
		h_{ef} [mm]	h_{min} [mm]	T_{inst} [Nm]	F_{max} [kN]	a_z [mm]	a [mm]	min a [mm]	a_r [mm]
Solid brick \geq Mz 12									
M6 – M8	Mz 12	75	110	≤ 4	1.40	250	100	50	250
M10 – M16	Mz 12	75	110	≤ 4	1.70	250	100	50	250
Solid sand-lime brick block KS 28									
M6 – M8	\geq KS 28	75	110	≤ 4	1.40	250	100	50	250
M10 – M16	\geq KS 28	75	110	≤ 4	1.70	250	100	50	250

1) Smallest possible axial spacing for pairs of anchors or groups of four and simultaneous reduction in the maximum load.

2) Applies to tension load, shear load and diagonal pull under each angle.

3) Values apply to all anchor rods. When using FIS E internal thread anchors (M6 to M12), the anchoring depth is 85 mm rather than 75 mm.

4) Gvz and A4. For FIS E, screw of strength class 5.8 or A4-70.

5) The specified loads apply to anchoring in dry masonry for temperatures of up to +50 °C (or short-term up to +80 °C) and drill hole cleaning.

6) 2 Nm if not placed in the mortar bed (for non-adjacent anchor plate on the base material).

Injection mortar FIS GREEN - perforated brick masonry

Injection system injection mortar FIS GREEN with anchor rod FIS A³⁾ and/or internal threaded anchor FIS E³⁾ with anchor sleeve FIS H K.
Maximum loads⁴⁾ of an individual anchor in perforated brick masonry.

Model	Strength class Anchoring base	Effective anchoring depth	Min. component thickness	Installation torque ⁵⁾	Maximum load ²⁾ rotation drilling	min. axial spacing single anchor	Axial spacing within group of anchors	Minimum axial spacing ¹⁾ within group of anchors	min. rim clearance
		h_{ef} [mm]	h_{min} [mm]	T_{inst} [Nm]	F_{max} [kN]	a_z [mm]	a [mm]	min a [mm]	a_r [mm]
Vertically perforated brick \geq HLz 12									
M6 + FIS H 12 x 50 K	HLz 12	50	110	≤ 4	0.5	250	100	50	200
M8 – M10 + FIS H 16 x 85 K	HLz 12	85	110	≤ 4	0.7	250	100	50	200
M12 – M16 + FIS H 20 x 130 K	HLz 12	90	110	≤ 4	0.7	250	100	50	200

1) Smallest possible axial spacing for pairs of anchors or groups of four and simultaneous reduction in the maximum load.

2) Applies to tension load, shear load and diagonal pull under each angle.

3) Gvz and A4. For FIS E, screw of strength class 5.8 or A4-70. FIS E only from M6 to M12.

4) The specified maximum loads apply to anchoring in dry masonry for temperatures up to +50 °C (or short-term up to +80 °C) and drill hole cleaning.

5) 2 Nm if not placed in the mortar bed (for non-adjacent anchor plate on the base material).

Our all-round service for you.



As a reliable partner we are glad to provide you with advice and assistance at any time:

- Our products range from plastic dowels and steel anchors to chemical systems.
- Expertise and innovation through own research, development and production.
- Global presence and active sales service in more than 100 countries.
- Qualified application-specific advice for economic installation solutions that are compliant with Directives. If need be we are there for you - even at the construction site.
- Training measures (some with certification) at your premises or at the fischer ACADEMY.
- Construction and design software for challenging fixings.

This is what fischer stands for.



FIXING SYSTEMS



AUTOMOTIVE SYSTEMS



FISCHERTECHNIK



CONSULTING

Your specialist dealer:

For more information on the overall fischer product range please see our comprehensive main catalogue or visit our website at www.fischer.de

fischerwerke GmbH & Co. KG
 Weinhalde 14-18 · 72178 Waldachtal
 Germany
 Tel. +49 7443 12-0 · Fax +49 7443 12-4220
www.fischer.de · info@fischer.de

fischer 
 innovative solutions
 greenline