

# Aircrte anchor GB

The special plug for different fixings in aerated concrete.



Pipes



Trellis

6

## Applications

- Light cable trays
- Pipelines
- Guard rails
- Façade and roof constructions made of wood and metal
- Light canopy brackets
- Letter boxes
- Trellis

## Advantages

- The general building approval guarantees approved safety for use in safety-relevant applications.
- The spiral-shaped outer ribs cut a positive fit in the soft building material, thus ensuring the best pressure distribution and load-bearing capacity.

- Can be applied with a hammer - there is no need for special tools, thus saving time and money for the installation.
- The GB can also be used safely outside (e.g. in façade installation) when combined with the approved fischer safety screw in A4.

## Certificates / Features



DIBt Approval

## Building materials

### Approved for (GB 10) resp. suitable for (GB 8 and GB 14):

- Aerated concrete  $\geq$  PB2, PP2

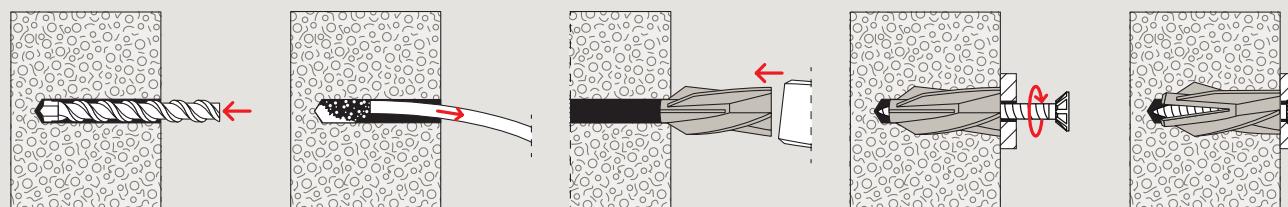
### Also suitable for:

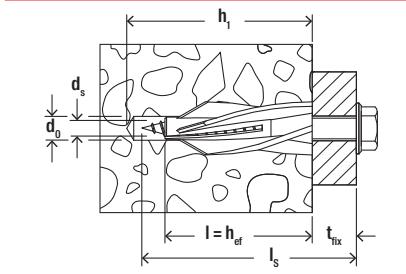
- Aerated concrete and ceiling panels of compressive strength  $\geq 3.3$

## Functioning

- The GB is suitable for pre-positioned installation.
- The spiral-shaped outer ribs ensure a positive fit connection between the building material and anchor.
- The required screw length is given by: Anchor length + fixture thickness + 1 x screw diameter.
- The GB 10 must be used with fischer safety screws to fulfil the approval and to achieve the maximum load-bearing capacity.
- Use rotary drilling to create the drill hole
- Can be used in unplastered aerated concrete

## Installation GB





## Technical data

### Aircrete anchor GB

6



GB

Item	Item no.	Ap- pro- val	Drill diameter	Min. drill hole depth	Plug length = min. anchorage depth	fischer safety screw	Sales unit
		DIBt	$d_0$ [mm]	$h_1$ [mm]	$l = h_{ef}$ [mm]	$d_s$ [mm]	[pcs]
GB 8	050491	–	8	60	50	5	25
GB 10	050492	●	10	65	55	7	20
GB 14	050493	–	14	90	75	10	10

### fischer Safety screw for GB

Type	Usable length		Screw dimension <sup>1)</sup>	Zinc plated and passivated steel	
	min. $t_{fix}$ [mm]	max. $t_{fix}$ [mm]		Countersunk head, TX star recess drive	Hexagonal head
GB 10	0	5	7 x 67	Item No.	80404
	5	25	7 x 87		80405
	25	45	7 x 107		89172
	85	105	7 x 167		89178
GB 14	0	10	10 x 95		80412

<sup>1)</sup> Further sizes on request.

## Loads

### Aircrete anchor GB

Permissible or recommended loads<sup>1,2)</sup> for a single anchor in aerated concrete.

Type		GB 10 <sup>2)</sup>	GB 8 <sup>3)</sup>	GB 10 <sup>3)</sup>	GB 14 <sup>3)</sup>
Screw diameter	[mm]	7	5	6	10
Minimum spacing <sup>4)</sup>	$s_{min}$ [mm]	100	150 (100) <sup>5)</sup>	150 (100) <sup>5)</sup>	300 (200) <sup>5)</sup>
Minimum edge distance <sup>5)</sup>	$c_{min}$ [mm]	100	100 (75) <sup>6)</sup>	100 (75) <sup>6)</sup>	200 (150) <sup>6)</sup>
Minimum member thickness	$h_{min}$ [mm]	120	75	120	200
Nominal embedment depth	$h_{nom}$ [mm]	55	50	55	75
Load in the respective base material		Permissible loads $F_{perm}$ <sup>7)</sup>	Recommended loads $F_{rec}$ <sup>8)</sup>		
AAC 2	$\rho \geq 0.35$ [kg/dm <sup>3</sup> ]	[kN] 0.21	0.18	0.20	0.40
AAC 4	$\rho \geq 0.50$ [kg/dm <sup>3</sup> ]	[kN] 0.54 (0.71) <sup>9)</sup>	0.40	0.50	0.90

<sup>1)</sup> Required safety factors are considered. Valid for tension load, shear load and oblique load under any angle.

<sup>2)</sup> In case of the design of the GB 10 for tension, shear and bending the complete approval Z-21.2-123 has to be considered.

<sup>3)</sup> Not part of the approval. Valid for installation and use in dry base material for temperatures in the substrate up to +24 °C (resp. short term up to +40 °C).

<sup>4)</sup> Minimum possible axial spacing while reducing the permissible load.

<sup>5)</sup> Minimum possible edge distance.

<sup>6)</sup> Values in brackets apply to AAC 2.

<sup>7)</sup> Value only applies in connection with GB 10 and fischer safety screw according to approval Z-21.2-123.

<sup>8)</sup> Values are valid in combination with wood screws acc. DIN 571.

<sup>9)</sup> The values in brackets are decisive for member thickness  $\geq 150$  mm.