



Frame anchor for fixings in concrete, solid masonry, hollow block and aerated concrete

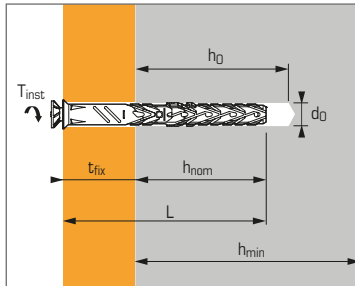


ETAG 020 - 13/1068



B-LONG is included in ITW Seismic Research Program  
<http://seismic.spit.it>

## Technical data



### APPLICATION

- Roofing clamps
- Sanitary equipment
- Fixing wall plates
- Timbers
- Insulation
- Facade bracketing

### MATERIAL

- **Body:** polyamid 6
- **Screw:**

Zinc coated steel: grade 6.8 (5 µm)

Stainless steel: A4-80

- **Head type:**

F : countersunk head

- TORX 30 (Ø8)
- TORX 40 (Ø10)

HS : hexagonal head

- + integrated washer

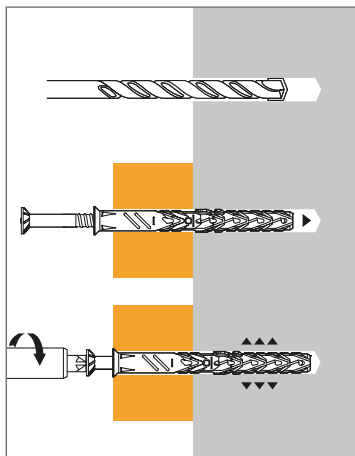


Anchor size	Concrete		Structural clay block		Hollow clay brick/ Aerated concrete		Setting data and Anchor size					Code				
	Embed. depth (mm)	Max. thickness to fix (mm)	Embed. depth (mm)	Max. thickness to fix (mm)	Embed. depth (mm)	Max. thickness to fix (mm)	Base material thickness (mm)	Drilling depth (mm)	Drilling diameter (mm)	Total anchor length (mm)	Tighten torque	Head version F	Head version HS	Head version F - A4	Head version HS - A4	
	$h_{nom}$	$t_{fix}$	$h_{nom}$	$t_{fix}$	$h_{nom}$	$t_{fix}$	$h_{min}$	$h_g$	$d_o$	L	$T_{inst}$					
8X60/10	50	10	50	10	50	10	100	60	8	60	12	567950	-	-	-	
8X80/30		30		30		30				80		567951	-	567942	-	
8X100/50		50		50		50				50		100	567952	-	567943	-
8X120/70		70		70		70				70		120	567953	-	-	-
8X150/100		100		100		100				100		150	567954	-	-	-
10X60/10	40	20	50	10	70	-	$h_{nom}$	$h_{nom} + 10$ mm	10	60	16*	-	567969	-	567986	
10X80/30		40		30		10				80		567957	567970	567981	567987	
10X100/50		60		50		30				100		567958	567971	567982	567988	
10X120/70		80		70		50				120		567959	567972	-	-	
10X140/90		100		90		70				140		567960	567973	-	-	
10X160/110		120		110		90				160		567961	567974	-	-	
10X180/130		140		130		110				180		567962	567975	-	-	
10X200/150		160		150		130				200		567963	567976	-	-	
10X230/180		190		180		160				230		567964	567977	-	-	
10X260/210		220		210		190				260		567965	567978	-	-	
10X280/230		240		230		210				280		567966	567979	-	-	
10X300/250		260		250		230				300		567967	567980	-	-	

\* In aerated concrete apply torque at 50% of nominal value

Products on special orders

### INSTALLATION





## Characteristic loads ( $N_{Rk}$ , $V_{Rk}$ ) in kN

### TENSILE (Temperature : $-40^{\circ}\text{C} < T < +50^{\circ}\text{C}^{(2)}$ )

Base material <sup>(1)</sup>	Anchor size	$\emptyset 8$	$\emptyset 10$	$\emptyset 10$	$\emptyset 10$
	$h_{nom}$	50	40	50	70
<b>Concrete (C20/25)</b>					
$N_{Rk}$		3,0	3,5	5,5	-
<b>Solid clay brick Wienerberger MZ 28-1,8 (fck = 20 MPa)<sup>(1)</sup></b>					
$N_{Rk}$		3,0	-	3,0	-
<b>Hollow clay brick Wienerberger Porotherm BIOPLAN (fbk = 12 MPa)<sup>(1)</sup></b>					
$N_{Rk}$		2,0	-	2,0	-
<b>Hollow concrete block B40 (fbk = 4 MPa)<sup>(1)</sup></b>					
$N_{Rk}$		1,5	-	1,2	-
<b>Autoclaved aerated concrete type low strength YTONG «Clima» Block (fbk = 2,4 MPa)</b>					
$N_{Rk}$		-	-	0,6	0,6
<b>Autoclaved aerated concrete type high strength YTONG «Sismico» Block (fbk = 5 MPa)</b>					
$N_{Rk}$		-	-	1,5	2,0

### SHEAR

Base material <sup>(1)</sup>	Anchor size	$\emptyset 8$	$\emptyset 10$	$\emptyset 10$	$\emptyset 10$
	$h_{nom}$	50	40	50	70
<b>Concrete (C20/25)</b>					
$V_{Rk}$		6,9	9,1	9,1	9,1
<b>Solid clay brick Wienerberger MZ 28-1,8 (fck = 20 MPa)<sup>(1)</sup></b>					
$V_{Rk}$		3,0	-	3,0	-
<b>Hollow clay brick Wienerberger Porotherm BIOPLAN (fbk = 12 MPa)<sup>(1)</sup></b>					
$V_{Rk}$		2,0	-	2,0	-
<b>Hollow concrete block B40 (fbk = 4 MPa)<sup>(1)</sup></b>					
$V_{Rk}$		1,5	-	1,2	-
<b>Autoclaved aerated concrete type low strength YTONG «Clima» Block (fbk = 2,4 MPa)</b>					
$V_{Rk}$		-	-	0,6	0,6
<b>Autoclaved aerated concrete type high strength YTONG «Sismico» Block (fbk = 5 MPa)</b>					
$V_{Rk}$		-	-	1,5	2,0

## Design loads ( $N_{Rd}$ , $V_{Rd}$ ) and recommended loads ( $N_{rec}$ , $V_{rec}$ ) in kN

### TENSILE (Temperature : $-40^{\circ}\text{C} < T < +50^{\circ}\text{C}^{(2)}$ )

Base material <sup>(1)</sup>	Anchor size	$\emptyset 8$	$\emptyset 10$	$\emptyset 10$	$\emptyset 10$
	$h_{nom}$	50	40	50	70
<b>Concrete (C20/25)</b>					
$N_{Rd}$		1,7	1,9	3,1	-
$N_{rec}$		1,2	1,4	2,2	-
<b>Solid clay brick Wienerberger MZ 28-1,8 (fck = 20 MPa)<sup>(1)</sup></b>					
$N_{Rd}$		1,2	-	1,2	-
$N_{rec}$		0,9	-	0,9	-
<b>Hollow clay brick Wienerberger Porotherm BIOPLAN (fbk = 12 MPa)<sup>(1)</sup></b>					
$N_{Rd}$		0,8	-	0,8	-
$N_{rec}$		0,6	-	0,6	-
<b>Hollow concrete block B40 (fbk = 4 MPa)<sup>(1)</sup></b>					
$N_{Rd}$		0,6	-	0,5	-
$N_{rec}$		0,4	-	0,3	-
<b>Autoclaved aerated concrete type low strength YTONG «Clima» Block (fbk = 2,4 MPa)</b>					
$N_{Rd}$		-	-	0,30	0,30
$N_{rec}$		-	-	0,21	0,21
<b>Autoclaved aerated concrete type high strength YTONG «Sismico» Block (fbk = 5 MPa)</b>					
$N_{Rd}$		-	-	0,75	1,00
$N_{rec}$		-	-	0,54	0,71

### SHEAR

Base material <sup>(1)</sup>	Anchor size	$\emptyset 8$	$\emptyset 10$	$\emptyset 10$	$\emptyset 10$
	$h_{nom}$	50	40	50	70
<b>Concrete (C20/25)</b>					
$V_{Rd}$		4,6	6,0	6,0	6,0
$V_{rec}$		3,3	4,3	4,3	4,3
<b>Solid clay brick Wienerberger MZ 28-1,8 (fck = 20 MPa)<sup>(1)</sup></b>					
$V_{Rd}$		1,1	-	1,2	-
$V_{rec}$		0,8	-	0,9	-
<b>Hollow clay brick Wienerberger Porotherm BIOPLAN (fbk = 12 MPa)<sup>(1)</sup></b>					
$V_{Rd}$		0,8	-	0,8	-
$V_{rec}$		0,6	-	0,6	-
<b>Hollow concrete block B40 (fbk = 4 MPa)<sup>(1)</sup></b>					
$V_{Rd}$		0,6	-	0,5	-
$V_{rec}$		0,4	-	0,3	-
<b>Autoclaved aerated concrete type low strength YTONG «Clima» Block (fbk = 2,4 MPa)</b>					
$V_{Rd}$		-	-	0,30	0,30
$V_{rec}$		-	-	0,21	0,21
<b>Autoclaved aerated concrete type high strength YTONG «Sismico» Block (fbk = 5 MPa)</b>					
$V_{Rd}$		-	-	0,75	1,00
$V_{rec}$		-	-	0,54	0,71

<sup>(1)</sup> Other material references are specified in the ETA

<sup>(2)</sup> Suitable for «range b» temperatures ( $-40^{\circ}\text{C} < T < +80^{\circ}\text{C}$ ) : figures above must be reduced, refer to ETA for data.

## Spacing data

### IN CONCRETE

Minimum distance between anchors and from edges (mm)					
	$h_{nom}$	$S_{cr,N}$	$C_{cr,N}$	$S_{min}$	$C_{min}$
$\emptyset 8$	50	60	50	50	50
$\emptyset 10$	40	65	80	60	50
$\emptyset 10$	50	90	100	70	60

### IN HOLLOW MASONRIES

#### The anchor must be installed at the minimum distance of:

- 100 mm from one edge.
- 200 mm from another anchor with spacing parallel to the edge.
- 400 mm from another anchor with spacing perpendicular to the edge.