



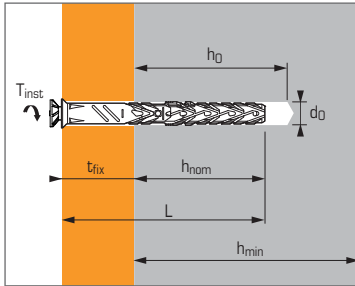
Frame anchor for fixings in concrete, solid masonry, hollow block and aerated concrete



European Technical Assessment  
ETAG 020 - 13/1068



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



## Technical data

Anchor size	Concrete		Structural clay block		Hollow clay brick/ Aerated concrete		Setting data and Anchor size					Code			
	Embed. depth (mm) <b>h<sub>nom</sub></b>	Max. thickness to fix (mm) <b>t<sub>fix</sub></b>	Embed. depth (mm) <b>h<sub>nom</sub></b>	Max. thickness to fix (mm) <b>t<sub>fix</sub></b>	Embed. depth (mm) <b>h<sub>nom</sub></b>	Max. thickness to fix (mm) <b>t<sub>fix</sub></b>	Base material thickness (mm) <b>h<sub>min</sub></b>	Drilling depth (mm) <b>h<sub>0</sub></b>	Drilling diameter (mm) <b>d<sub>0</sub></b>	Total anchor length (mm) <b>L</b>	Tighten torque <b>T<sub>inst</sub></b>	Head version F	Head version HS	Head version F - A4	Head version HS - A4
8X60/10	50	10	50	10	50	100	60	8	60	12	567950	-	-	-	
8X80/30		30		30							567951	-	567942	-	
8X100/50		50		50							567952	-	567943	-	
8X120/70		70		70							567953	-	-	-	
8X150/100		100		100							567954	-	-	-	
10X60/10	40	20	50	10	70	<b>h<sub>nom</sub></b> X2	<b>h<sub>nom</sub></b> +10 mm	10	60	16*	-	567969	-	567986	
10X80/30		40		30							567957	567970	567981	567987	
10X100/50		60		50							567958	567971	567982	567988	
10X120/70		80		70							567959	567972	567983	567989	
10X140/90		100		90							567960	567973	567984	-	
10X160/110		120		110							567961	567974	-	-	
10X180/130		140		130							567962	567975	-	-	
10X200/150		160		150							567963	567976	-	-	
10X230/180		190		180							567964	567977	-	-	
10X260/210		220		210							567965	567978	-	-	
10X280/230		240		230							567966	567979	-	-	
10X300/250		260		250							567967	567980	-	-	

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

Products on special orders

## APPLICATION

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

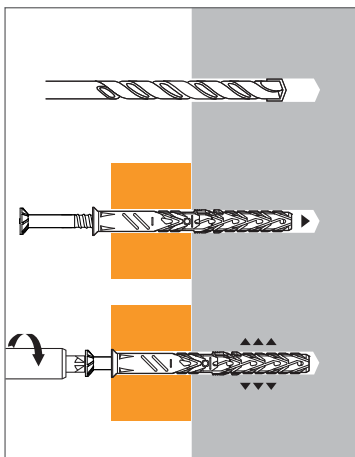
## MATERIAL

- **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

## 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.