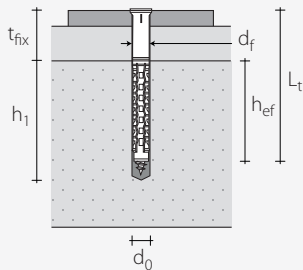


- Certified use for cracked and uncracked concrete, solid and hollow-brick masonry (category of use a,b,c)
- R90 fire resistance for Ø10 mm
- Plastic anchor for non-structural applications in concrete and masonry
- Complete with 5.8 grade galvanized-steel screw with countersunk head
- Through fastening

NDC



code	d ₀ [mm]	L _t [mm]	d _v x L _v [mm]	t _{fix} [mm]	h _{1,min} [mm]	h _{ef} [mm]	d _f [mm]	insert [mm]	pcs/box
FE210600	8	80	5,5 x 85	10	80	70	8,5	TX30	50
FE210570		100	5,5 x 105	30	80	70	8,5	TX30	50
FE210575		120	5,5 x 125	50	80	70	8,5	TX30	50
FE210580		140	5,5 x 145	70	80	70	8,5	TX30	50
FE210705	10	100	7 x 105	30	80	70	10,5	TX40	50
FE210710		120	7 x 125	50	80	70	10,5	TX40	50
FE210715		140	7 x 145	70	80	70	10,5	TX40	50
FE210720		160	7 x 165	90	80	70	10,5	TX40	50
FE210725		200	7 x 205	130	80	70	10,5	TX40	25
FE240010		240	7 x 245	170	80	70	10,5	TX40	25



d₀ = anchor diameter = hole diameter
in the concrete support

L_t = anchor length

d_v x L_v = screw diameter x screw length

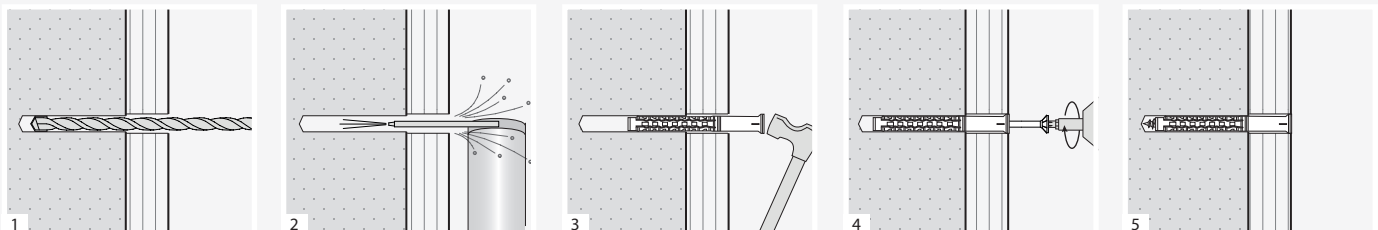
t_{fix} = maximum fixing thickness

h₁ = minimum hole depth

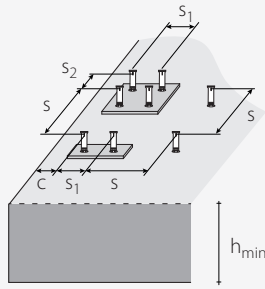
h_{ef} = effective anchor depth

d_f = maximum hole diameter in the element to be fastened

ASSEMBLING



INSTALLATION



Spacing and distances on concrete			Ø8	Ø10
Minimum spacing	concrete C12/15	s_{min} [mm]	70	85
	concrete $\geq$ C16/20		50	60
Minimum edge distance	concrete C12/15	c_{min} [mm]	70	70
	concrete $\geq$ C16/20		50	50
Critical edge distance	concrete C12/15	$c_{cr,N}$ [mm]	100	140
	concrete $\geq$ C16/20		70	100
Minimum thickness of the concrete support		h_{min} [mm]	100	100

For spacing and distances smaller than the critical ones, strength values have to be reduced depending on the installation parameters

Spacing and distances on concrete			Ø8	Ø10
Minimum spacing for single anchor		s_{min} [mm]	250	
Minimum edge distance		c_{min} [mm]	100	
Minimum perpendicular spacing in a group of anchors		$s_{1,min}$ [mm]	200	
Minimum parallel spacing in a group of anchors		$s_{2,min}$ [mm]	400	
Minimum support thickness	solid brick EN 771-1	h_{min} [mm]	115	
	solid brick in calcareous sandstone EN 771-2		115	
	brick with vertical holes EN 771-1 (e.g. Dooble Uni)		115	
	hollow brick EN 771-1 (560x200x274 mm)		200	
	lime-sandstone hollow brick DIN106 / EN 771-2		240	

STATIC VALUES ON CONCRETE ⁽¹⁾

Valid for a single anchor when spacing and edge-distance are not limiting parameters.

	CHARACTERISTIC VALUES				
	TENSION ⁽²⁾		SHEAR ⁽³⁾		
	$N_{Rk,p}$ [kN]		$V_{Rk,s}$ [kN]	γ_{Mc}	γ_{Ms}
	C12/15	$\geq$ C 16/20			
Ø8	1,2	2,0	4,8	1,8	1,25
Ø10	2,0	3,0	6,4		1,5

	ADMISSIBLE VALUES			
	TENSION		SHEAR	
	N_{rec} [kN]		V_{rec} [kN]	
	C12/15	$\geq$ C 16/20		
Ø8	0,5	0,8	2,7	
Ø10	0,8	1,2	3,0	

GENERAL PRINCIPLES

- Characteristic values according to ETA and in accordance with ETAG 020 - Annex C.
- Design values can be obtained from characteristic values as follows:

$$R_d = \frac{R_k}{\gamma_m}$$

Coefficients γ_m are listed in the table in accordance with the product certificates.

- Admissible values (recommended) are evaluated based on the characteristic values by applying the material safety factors γ_m according to ETA and a further partial factor for actions $\gamma_f = 1,4$.
- For the calculation of anchors with reduced spacing, or too close to the edge, please refer to ETA. Similarly, in case of fastening on concrete-supports with a better-grade or limited thickness please see ETA.

NOTES

- ⁽¹⁾ For the anchor calculation in masonry applications, see ETA.
- ⁽²⁾ Pull-out failure mode.
- ⁽³⁾ Steel failure mode (screw).