

EXTRA-LONG NYLON ANCHOR CE WITH SCREW

- 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 use in concrete and masonry, in non-structural applications
- Complete with zinc plated steel screw with countersunk head
- Through fastening



USA, Canada and more design values available online.

SERVICE CLASS



ATMOSPHERIC CORROSIVITY



MATERIAL



electrogalvanized
carbon steel



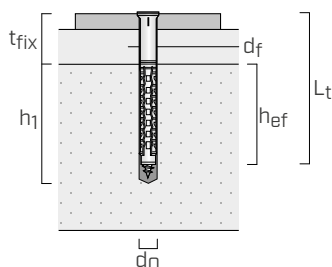
polyamide/nylon



CODES AND DIMENSIONS

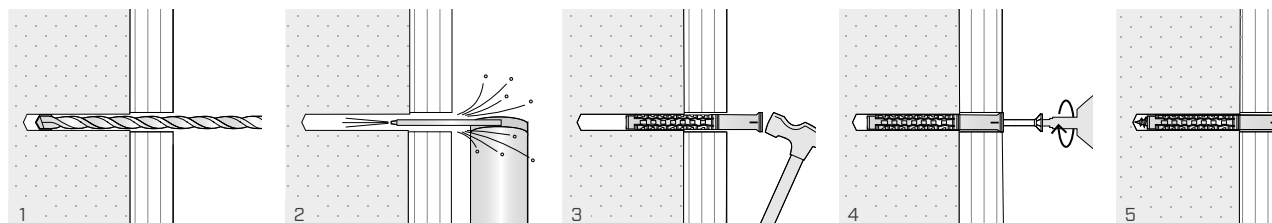
CODE	d ₀ [mm] [in]	L _t [mm] [in]	d _v x L _v [mm] [in]	t _{fix} [mm] [in]	h ₁ [mm] [in]	h _{ef} [mm] [in]	d _f [mm] [in]	bit	pcs
NDC880	8 0.32	80 3 1/8	5.5 x 85 0.22 x 3 3/8	10 0.39	80 3 1/8	70 2 3/4	8,5 0.33	TX30	50
NDC8100		100 4	5.5 x 105 0.22 x 4 1/8	30 1.18	80 3 1/8	70 2 3/4	8,5 0.33	TX30	50
NDC8120		120 4 3/4	5.5 x 125 0.22 x 4 15/16	50 1.97	80 3 1/8	70 2 3/4	8,5 0.33	TX30	50
NDC8140		140 5 1/2	5.5 x 145 0.22 x 5 11/16	70 2.76	80 3 1/8	70 2 3/4	8,5 0.33	TX30	50
NDC10100	10 0.40	100 4	7 x 105 0.28 x 4 1/8	30 1.18	80 3 1/8	70 2 3/4	10,5 0.41	TX40	50
NDC10120		120 4 3/4	7 x 125 0.28 x 4 15/16	50 1.97	80 3 1/8	70 2 3/4	10,5 0.41	TX40	50
NDC10140		140 5 1/2	7 x 145 0.28 x 5 11/16	70 2.76	80 3 1/8	70 2 3/4	10,5 0.41	TX40	25
NDC10160		160 6 1/4	7 x 165 0.28 x 6 1/2	90 3.54	80 3 1/8	70 2 3/4	10,5 0.41	TX40	25
NDC10200		200 8	7 x 205 0.28 x 8 1/16	130 5.12	80 3 1/8	70 2 3/4	10,5 0.41	TX40	25
NDC10240		240 9 1/2	7 x 245 0.28 x 9 5/8	170 6.69	80 3 1/8	70 2 3/4	10,5 0.41	TX40	20

GEOMETRY

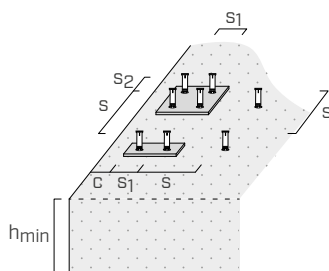


- d₀ anchor diameter = hole diameter in the concrete support
- L_t anchor length
- d_v x L_v screw diameter x screw length
- t_{fix} maximum fastening thickness
- h₁ minimum hole depth
- h_{ef} effective anchoring depth
- d_f maximum hole diameter in the element to be fastened

MOUNTING



■ INSTALLATION



Spacing and minimum distances on concrete				NDC	
				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 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 masonry				NDC	
				Ø8	Ø10
Minimum edge distance		c_{min}	[mm]	100	
Minimum spacing for single anchor		s_{min}	[mm]	250	
Minimum perpendicular spacing of the group of anchors to the free edge		$s_{1,min}$	[mm]	200	
Minimum parallel spacing of a group of anchors to the free edge		$s_{2,min}$	[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. Doppio Uni)			115	
	hollow brick EN 771-1 (560 x 200 x 274 mm)			200	
	calcareous sandstone hollow brick DIN106 / EN 771-2			240	

■ STRUCTURAL VALUES ON CONCRETE⁽¹⁾

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

CHARACTERISTIC VALUES

	tension ⁽²⁾			shear ⁽³⁾	
	$N_{Rk,p}$		γ_{Mc}	$V_{Rk,s}$	γ_{Ms}
	[kN]			[kN]	
	C12/15	$\geq$ C16/20			
Ø8	1,2	2,0	1,8	4,8	1,25
Ø10	2,0	3,0	1,8	6,4	1,5

NOTES

⁽¹⁾ For the anchor calculation in masonry applications, see ETA.

⁽²⁾ Pull-out failure mode.

⁽³⁾ Steel failure mode (screw).

GENERAL PRINCIPLES

- Characteristic values according to ETA-12/0261.
- The design values are obtained from the characteristic values as follows:
 $R_d = R_k / \gamma_M$.
Coefficients γ_M are listed in the table and are in accordance with the product certificates.
- 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.