TP HOLLOW CORE ANCHOR

TP CHC

Product Description

- European approval for interior non-structural applications in hollow slabs
- R30 to R120 Fire Approval
- The anchor collar stops it from entering the hole, making installation easy
- Suitable for installations with reduced distances
- Suitable for the use of volts or threaded rods with metric threads

TP CHC : TP Hollow Core Anchor (Zinc Plated), has an ETA approval for interior non-structural applications in hollow slabs

Item Number	Description	Size	Approval
TP 6494	TP Hollow Core Anchor (Zinc Plated)	TP CHC M06	✓
TP 6495	TP Hollow Core Anchor (Zinc Plated)	TP CHC M08	✓
TP 6496	TP Hollow Core Anchor (Zinc Plated)	TP CHC M10	✓

Application

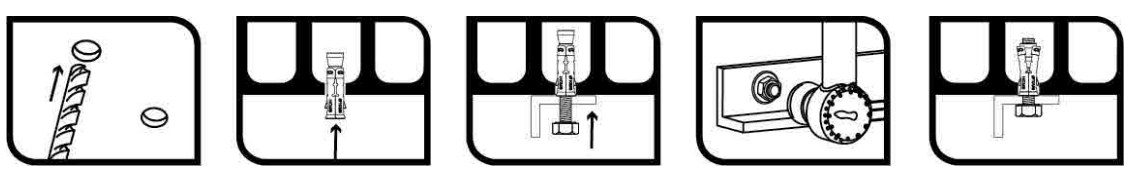
- Fixing suspended ceilings, sprinklers and ventilation systems
- Fixing pipe work and cable ducts

Anchor Material

Name	Size	Component	Material
TP CHC	M6 to M10	Expansion sleeve Cone	Carbon steel strip, electro zinc plated ≥ 5 µm ISO 4042 A2 Carbon steel wire rod, electro zinc plated ≥ 5 µm ISO 4042 A2

Installation Procedure

- Check the concrete base is well compacted and porosity insignificant. Dry, humid and flooded drills allowed. Drill at hammer or percussion position. Respect specified diameter and depth
- Introduce the anchor to the bottom of the drill hole. Use hammer if necessary. The anchor must not stand out of the surface of the base material
- Put the material to be fixed and insert the bolt or stud through holes. Use a bolt with the correct length. Wide washers are recommended (DIN 9021). Do not introduce any materials between the material to be fixed and the washer (sealants, etc.). Apply the nominal torque using dynamometric wrench



Safety in case of fire

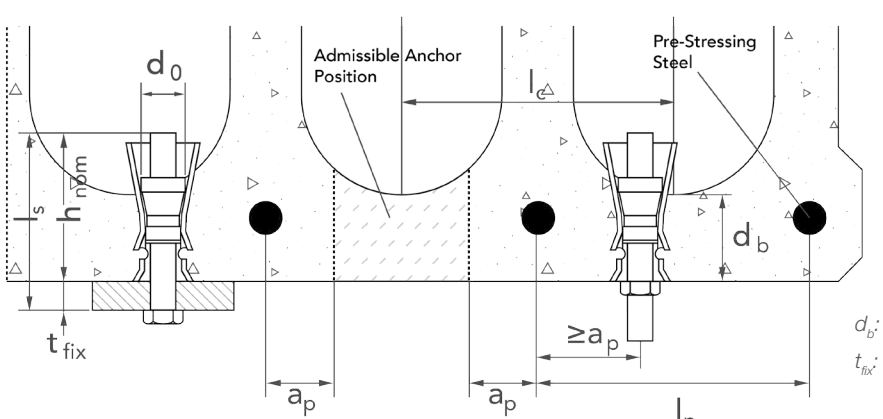
Reaction to fire has been assessed according to commission Decision 96/603/EC, amended by 2000/605/EC.

Reaction to fire*	M6	M8	M10
	Class A1		

**For characteristic resistance under fire exposure in ≥C40/50 prestressed hollow core slabs for use in non-structural applications in concrete, check our ETA approval*

Installation Parameters

Installation parameters			M6	M8	M10
d_o	Nominal diameter of drill bit	mm	10	12	16
D	Thread Diameter	mm	M6	M8	M10
d_f	Fixture clearance hole diameter	mm	7	9	12
T_{inst}	Installation Torque	Nm	10	20	30
h_1	Depth of drilled hole ≥	mm	45	50	60
h_{nom}	Overall anchor embedment depth in the base material	mm	38	44	53
l_c	Core distance ≥	mm	100	100	100
l_p	Prestressing steel distance ≥	mm	100	100	100
a_p	Distance between anchor position and prestressing reinforcement steel ≥	mm	50	50	50
l_s	Minimum length of bolt	mm	tfix+40	tfix+46	tfix+55
	Minimum steel class of bolt		6.8 ISO 898-1		
S_{min}	Minimum allowable spacing	mm	100	100	100
C_{min}	Minimum allowable edge distance	mm	60	70	80



d_b: Minimum thickness of prestressed hollow core concrete slab

t_{fix}: Thickness of fixture

Characteristic values of resistance

Characteristic resistances for non-structural applications in hollow concrete slabs type db ≥ 25; <30 mm with minimum thickness of 30 mm and for an isolated anchor (without consideration of edge distances or distances between anchors), with bolt class 6.8

Characteristic values of resistance to loads of design method B						
				M6	M8	M10
F^0_{RK}	Characteristic resistance in ≥ C40/50 prestressed hollow core slab	db ≥ 25 ; < 30mm	KN	3.5	5.0	8.0
		db ≥ 30 ; < 40mm	KN	7.0	10.0	10.0
		db ≥ 40mm	KN	8.5	11.5	14.0
γ_M	Partial safety factor*		-	1.8	1.5	1.8
S_{cr}	Characteristic spacing		mm	200	200	200
C_{cr}	Characteristic edge distance		mm	100	100	100

In absence of other national regulations

Calculation example

Fixing a 400kg tensile load (= 3.92 kN) on a C40/50 hollow concrete slab with 43mm thickness with an TP CHC M10 anchor and bolt class 6.8

Calculation: The safe load coefficient recommended is γF = 1.4
Verification to be performed: Load calculation < Resistance of calculation
Load calculation = service load * safe load coefficient = 3.92 * 1.4 = 5.49 kN
Resistance of calculation = characteristic resistance / partial safety coefficient = 14.0 / 1.8 = 7.78 kN

Verification: 5.49 kN < 7.78 kN

Result: The fixing is safe.