ZINC C1

CHARACTERISTICS

- European approval for interior non-structural applications in hollow slabs.
- CE Certification.
- R60 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.

APPROVAL

FIRE RESISTANCE

CE — NON STRUCTURAL FIXINGS IN HOLLOW CORE CONCRETE — ETA 15/0912

APPLICATIONS

- Suspended ceiling fixings, sprinkler systems and ventilation systems.
- Pipe work installations.
- Cable ducts.
- Suspended ceiling.

WEB PROFILE

BASE MATERIAL

RECOMMENDED LOADS IN HOLLOW SLABS [kg]

HC
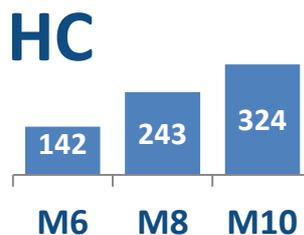
M6	M8	M10
142	243	324

SIZES

M6 – M10

DRILL HOLE CONDITION
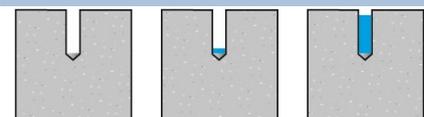
DRY   WET   FLOODED

APPLICATION EXAMPLES
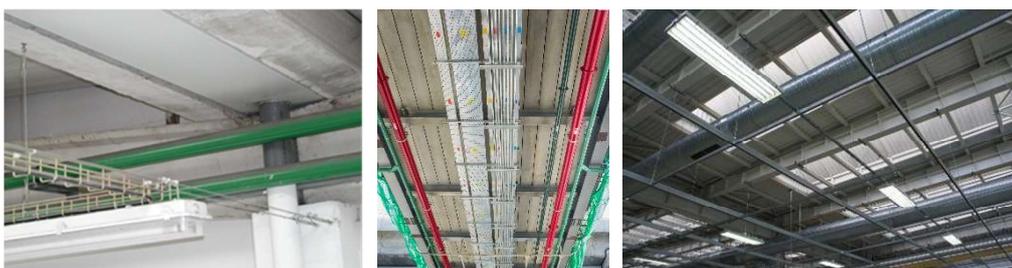
1. RANGE

ITEM	CODE	SIZES	PHOTO	COMPONENT	MATERIAL
1	HC	M6 to M10		Sleeve Cone Coating	Carbon Steel Carbon Steel Zinc-plated ≥ 5 µm

2. INSTALLATION DATA
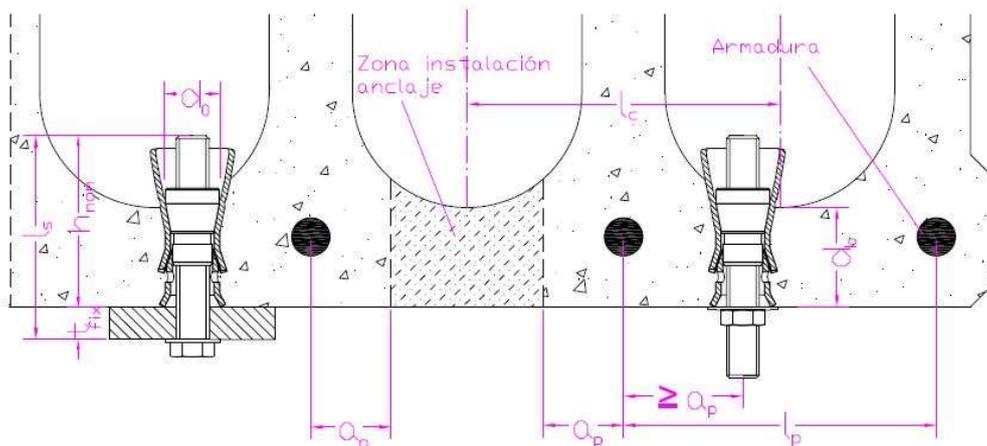
| SIZES		M6	M8	M10
d_0: drill diameter	[mm]	10	12	16
d_f: anchor plate diameter ≤	[mm]	7	9	12
T_{ins}: installation torque	[Nm]	10	20	30
h_1: drillhole depth	[mm]	45	50	60
h_{nom}: installation depth	[mm]	38	44	53
e: minimum bolt length*	[mm]	t_{fix}+ 40	t_{fix}+ 46	t_{fix}+ 55
$s_{cr,N}$: critical spacing between anchors	[mm]	200	200	200
$c_{cr,N}$: critical edge distance	[mm]	100	100	100
s_{min}: min. spacing between anchors	[mm]	100	100	100
c_{min}: min. edge distance	[mm]	60	70	90

(*) t_{fix} = thickness of the material to be fixed

Critical distances are those in which the anchors of a group of anchors do not influence each other for purposes of tensile loads. However, an anchor may not be installed at a value lower than the critical distance.

3. PRODUCT INSTALLATION
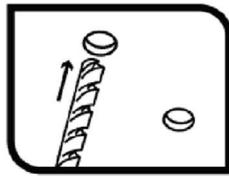
1. DRILL
Check concrete is well compacted and without significant pores.
Suitable for dry, humid or flooded drillholes.
Drill using percussion of hammer setting.
Drill to the specified diameter depth.
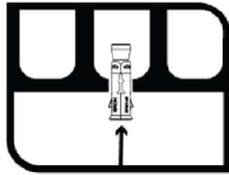
2. INSTALL
Insert the anchor to the bottom of the drillhole. Use hammer if necessary. The anchor must be flat on the surface of the base material.
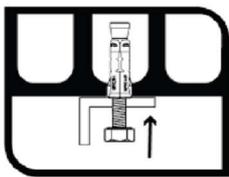
3. PLACE MATERIAL TO BE FIXED
Place the material to be fixed, threading the bolt or stud through the drillhole. Use the required bolt length. The use of wide series of washer (DIN 9021) is recommended. Do not apply any type of intermediate layer (sealants, etc.) between the material to be fixed and the washer.
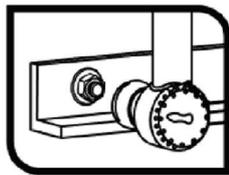
4. APPLY TORQUE
Apply nominal torque using a torque wrench.

4. RESISTANCES

Characteristic resistance for non-structural applications in hollow concrete slabs type $d_b25\geq$; <30 mm with minimum thickness of 30 mm and for an isolated anchor (without consideration of edge distance or distances between anchors), with bolt class 6.8

SIZES			M6	M8	M10
Code		[-]	HC06	HC08	HC10
ETE 15/0912 Approval		[-]	✓	✓	✓
Characteristic resistance in hollow concrete slabs ≥ C40/50 (F_{Rk})	$d_b\geq25;<30mm$	[kN]	3,5	5,0	8,0
	$d_b\geq30;<40mm$	[kN]	7,0	10,0	14,0
	$d_b\geq40$ mm	[kN]	8,5	11,5	14,0
Partial safety coefficient (γ_M)		[-]	1,8	1,5	1,8

1 KN ≈ 100 kg

The safe load recommended $\gamma_F = 1,4$
Calculation example:
    Fixing a 400kg tensile load (= 3,92 kN) on a C40/50 hollow concrete slab with 43mm thickness with an HC10 anchor and bolt class 6.8
    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: the fixing is safe.

For more complex calculations, you may use our INDEXcal anchor calculation program

5. OFFICIAL DOCUMENTATION

The following documents may be obtained through our sales department or on our website www.indexfix.com :

- ETE 15/0912 European Approval for the use of hollow slabs for multiple fixings in non-structural applications, from M6 to M10.
- Certifications on performance evidence EVCP 1219-CPR-0117.
- Performance Declaration DoP HC-en.
- INDEXcal anchor calculation program.