

Manufacturer: ETANCO (FRANCE)

Parc les Erables – Bât 1 – 66 route de Sartrouville – BP 49 – 78231 LE PECQ Cedex
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Product name

ZACROVIS 4 PI TH10/ 2C Ø 5,5 x L

Application :

Sheet of steel on steel beam

Description:

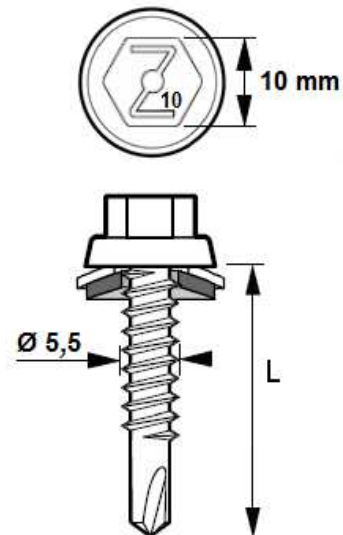
Self-drilling screw Ø 5.5 mm
ZAMAC Hex head of 10 mm natural finish or EPOXY powder painted stove hardened.
Pitch 1,81 mm. Drill point
Can be fitted with Vulca Alu washer Ø14 or inox Ø 19 mm
The pilot advanced IP allows drilling all plate carrier before thread engagement

Drilling capacity (CP):

1.5 to 4 mm into steel sheet

Material:

Screw body:
Cemented steel 20MB5 - SAE 1020 - JIS SWRCH22A.
Surface hardness HV 0.5 _ 550 < HV < 750
Screw head: ZAMAC (Zinc, Alu)
(20 year warranty against corrosion)
Washer: Aluminium or stainless steel A2 + vulcanized EPDM 2 mm thickness Shore 70 A



Material, coating and test of corrosion résistance:

- **2C: SUPRACOAT 2C** treated cemented steel (12 to 20 µm)

Corrosion résistance level determined by Kesternich test (sulfur dioxide corrosion with general dampness condensation) in compliance with NF EN 3231 (2 l)

Resisted to 15 cycles before the appearance of red rust

Salt spray test in compliance with NF ISO 9227 (March 2007):

Screw body: No trace of red rust after 500 hours.

Screw head: No trace of red rust after 1000 hours.

Painting of heads and washers:

Powder painted without TGIC – without Gloss polyester Epoxy

The following tests were carried out on 1 mm zinc plated steel test panels and a nominal coating thickness of 60 µm.

Test	ISO / ASTM Requirement
Cross adhesion	ISO 2409 - class 0
Impact resistance	ASTM D 2794 - pass 20 inch/lbs
Flexibility	ISO 1519 - pass 4 mm
Cupping test	ISO 1520 - pass 6 mm
Scratch resistance	N / A
Hot salt spray resistance	ISO 9227 - pass 1,000 hours
Humidity resistance	ISO 6270 - pass 1,000 hours
Kesternich resistance	ISO 3231 - pass 25 cycles
Chemical resistance	Resistance to most acids, alkalis and oils at normal temperatures. May be affected by chlorinated solvents.

Drilling time Performance:

Conditions: a) Test material : Structural steel S355 JR
 b) Tools used : Drilling test with SCS Fein 6.3-19X power 400 W mini with torque limiter and depth control

Drilling test	Unit	Ø 4.8	Ø 5.5	Ø 6.3 & 6.5
Drilling time	s/mm	< 2	< 2	< 2
Speed rotate	rpm	2000 *	2000 *	2000 *
Axial load	daN	16	20	27

* Under load: 1800 rotations/min

Drilling Capacity, diameter, length (in mm) and packaging:

Drilling capacity	Ø x Length	CS Capacity of mini tightening	Assembly capacity CA maxi	Hex head TH	Packaging
1.5 to 4	5.5 x 25 + VA 14	-	7	10	100
1.5 to 4	5.5 x 25 + VI 19	-	6	10	100
1.5 to 4	5.5 x 38 + VA 14	-	16	10	100
1.5 to 4	5.5 x 38 + VI 19	-	15	10	100

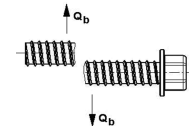
Tensile test (value in daN):

$\bar{x} = 1176 \text{ daN}$



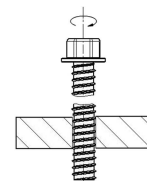
Shear test value – 0.6 x Rm (value in daN):

$\bar{x} = 705 \text{ daN}$



Breaking torque (in Nm):

$\bar{x} = 10 \text{ Nm}$

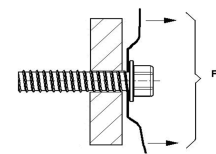


Pull over test value (Pk in daN) of top sheet - In compliance with NF P 30-314.

		Thickness of sheet steel (mm)				
Superior steel sheet (S320)		Steel sheet support (S320)			Steel sheet support (S235)	
0.75 mm		1.5 mm	2 mm	2.5 mm	3 mm	4 mm
		191	294	521	627*	627*

Important: these values do not include safety coefficients

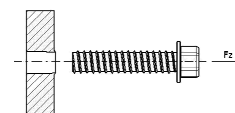
*Buckling



Pull out test values (Pk in daN) – In compliance with NF P 30-310

Thickness of Steel sheet support (S320)			Thickness of Steel sheet support (S235)	
1.5 mm	2 mm	2.5 mm	3 mm	4 mm
194	258	525	592	1245

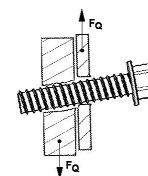
Important: these values do not include safety coefficients



Shear load test value (Pk in daN) – In compliance with NF P 30-316.

Thickness of sheet steel (mm)		
Superior steel sheet (S320)	Steel sheet support (S320)	daN
0.75	1.5	-
0.75	2	-
0.75	2.5	-
Superior steel sheet (S320)	Steel sheet support (S235)	
0.75	3	-
0.75	4	-

Important: these values do not include safety coefficients



Compliance:

DTU 40.35
French professional regulations related to cladding

Recommended setting tools:

Screwing toll FEIN SCS 6.3 -19X power 400 W mini with torque limiter and depth control
Screw Tip : socket with 10 mm imprint hex head hollow

Marking - Labelling:

ZACROVIS 4 PI TH10 / 2C – Ø 5,5 x L +VA 14 + article number
ZACROVIS 4 PI TH10 / 2C – Ø 5,5 x L + VI 19 + article number

Quality control:

ISO 9001 : 2008