

**Manufacturer: LR ETANCO (FRANCE)**

Parc les Erables – Bât 1 – 66 route de Sartrouville – BP 49 – 78231 LE PECQ Cedex  
Tel.: +33 (0)1 34 80 52 00 – Fax: +33 (0)1 30 71 01 89

**Product name:**

## ZACROVIS 6 TH12 2C Ø 6,3 x L

**Application:**

Steel sheet on metal purlin.

**Description:**

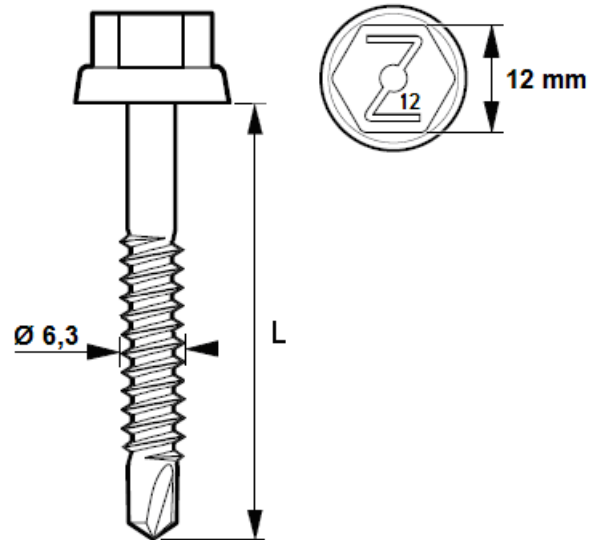
Self-drilling screw Ø 6.3 mm  
ZAMAC hexagonal head of 12 mm with collar. Natural finish or EPOXY powder painted, stove hardened.  
Pitch = 1,81mm. Drill point

**Drilling capacity (CP):**

1.5 to 6 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 years warranty against corrosion)



Not contractual position marking

**Material, coating and anti-corrosion level tests:**

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

Anti-corrosion level determined by Kesternich test (sulphur dioxide corrosion with general dampness condensation) according to NF EN 3231 (2l):

Resisted to 15 cycles before the appearance of red rust.

Salt spray test according to 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 Specification
Cross hatch 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 Performance:

Conditions: a) Test material: S355 JR  
 b) Test screwdriver: Drilling test with SCS Fein 6.3-19X power 400 W mini with torque limiter (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 performance, diameter, length in mm and packaging

Drilling capacity	Ø x Length	CS Build up min	CS Build up max	Hex head TH	Packaging
1.5 to 6	6,3 x 38	-	23	12	100
1.5 to 6	6,3 x 38 + VA 14	-	22	12	100
1.5 to 6	6,3 x 38 + VI 19	-	22	12	100
1.5 to 6	6,3 x 50	-	37	12	100
1.5 to 6	6,3 x 50 + VI 19	-	34	12	100
1.5 to 6	6,3 x 60	23	47	12	100
1.5 to 6	6,3 x 75	38	62	12	100
1.5 to 6	6,3 x 85	41	72	12	100
1.5 to 6	6,3 x 100	56	87	12	100
1.5 to 6	6,3 x 125	71	112	12	100
1.5 to 6	6,3 x 160	80	147	12	100
1.5 to 6	6,3 x 200 *	146	187	12	100

\* Crimped head

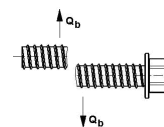
### Tensile test value in daN:

$\bar{x} = 1614 \text{ daN}$



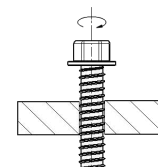
### Shear test value – 0.6 x Rm (value in daN):

$\bar{x} = 968 \text{ daN}$



### Torsion test value in Nm:

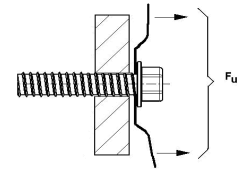
$\bar{x} = 16 \text{ Nm}$



## Pull out test values (Pk in daN) of top sheet - According to NF P 30-314

Sheet thickness (mm)		Steel sheet (Steel S320)			Steel sheet (Steel S235)		
0.75 mm	1.5 mm	2 mm	2.5 mm	3 mm	4 mm	6 mm	
	<b>183</b>	<b>291</b>	<b>478</b>	<b>560</b>	<b>681 *</b>	<b>681</b>	

Important: these values do not include safety coefficients and are provided for information purposes only

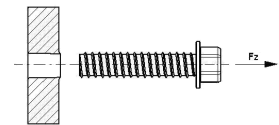


\* **Buckling**

## Pull out test values (Pk in daN) – According to NF P 30-310

Steel sheet (Steel S320)					
Steel S320			Steel S235		
1.5 mm	2 mm	2.5 mm	3 mm	4 mm	6 mm
<b>262</b>	<b>254</b>	<b>438</b>	<b>560</b>	<b>728</b>	<b>1123</b>

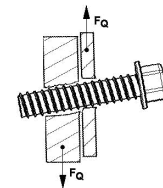
Important: these values do not include safety coefficients and are provided for information purposes only



## Shear load test values (Pk in daN) – According to NF P 30-316

Sheet thickness (mm)			daN
Top sheet (Steel S320)	Steel sheet (Steel S320)		
0.75	1.5		-
0.75	2		-
0.75	2.5		-
Top sheet (Steel S320)	Steel sheet (Steel S235)		-
0.75	3		
0.75	4		
0.75	6		

Important: these values do not include safety coefficients and are provided for information purposes only



### Conformity:

DTU 40.35

### Recommended setting tools:

Screwdriver: FEIN SCS 6.3 -19X power 400 W mini with torque limiter (depth control)  
Screw bit: 12 mm countersunk hexagonal head

### Marking - Labelling:

ZACROVIS 6 TH12 / 2C – Ø 6,3 x L + CODE  
ZACROVIS 6 TH12 / 2C – Ø 6,3 x L + VA14 + CODE  
ZACROVIS 6 TH12 / 2C – Ø 6,3 x L + VI19 + CODE

### Quality control:

ISO 9001 : 2015