

Manufacturer: LR ETANCO (FRANCE)

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Product name:

MONOZAC 4 TH12 2C Ø 6.3 x L

Application:

Fastening roofing sheets through the top corrugation of the G.O.177x51 fibres-cement sheets to metal purlins.

Description:

Self-drilling screw Ø 6.3 mm

ZAMAC 12 mm hexagonal head of 8 mm with collar, natural finish or EPOXY powder painted, stove hardened.

Pitch = 1.81 mm. Drill Point

Pre-fitted with dome washer (EPDM Ø25 mm / Inox Ø 22 mm).

Drilling capacity (CP):

1,5 to 4 mm into steel sheet.

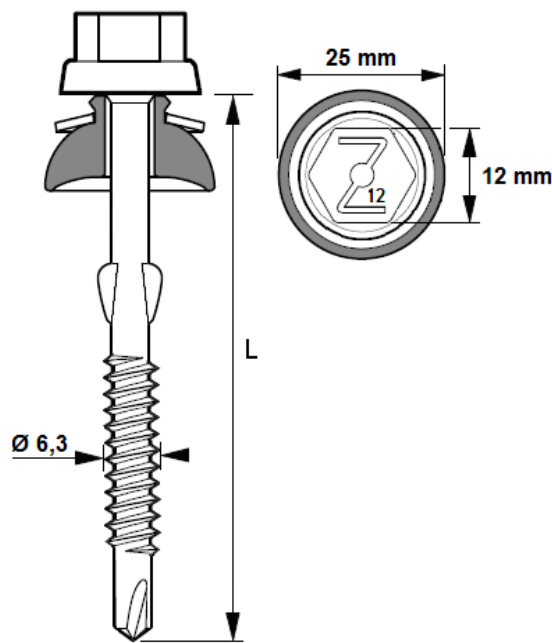
Material:

Screw body: Cemented steel 20MB5 - SAE 1020 - JIS SWRCH22A.

Surface hardness: HV 0.5 _ 550 < HV < 750

Screw head: ZAMAC (Zinc, Alu)

Washer: EPDM dome washer Ø 25, thickness 13 mm, 68 Shore A + Stainless steel A2, Ø 22 mm



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):

No trace of red rust after 500 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 4	6.3 x 105 + DI 22	50	73	12	100
1,5 to 4	6.3 x 115 + DI 22	60	83	12	100
1,5 to 4	6.3 x 125 + DI 22	48	92	12	100

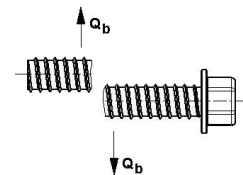
Tensile test value in daN:

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



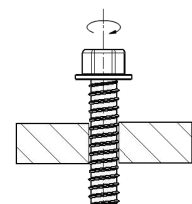
Shear test value – 0.6 x Rm (value in daN):

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



Torsion test value in Nm:

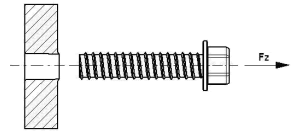
$\bar{x} = 16 \text{ Nm}$



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

Sheet thickness (mm)				
Steel S235				
1,5 mm	2 mm	2,5 mm	3 mm	4 mm
606	723	768	801	1151

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



Conformity:

Workbook of CSTB n° 3297.
DTU 40.37 (09/2011).

Recommended setting tools:

Screwdriver: FEIN SCS 6.3 -19X power 400 W mini with torque limiter (depth control).
Screw bit: 10 mm countersunk hexagonal head of 12 mm.

Marking - Labelling:

MONOZAC 4 TH12 2C - Ø 6.3 x L + Dome Washer (EPDM Ø25 mm / Inox Ø22 mm) + CODE.

Quality control:

ISO 9001 : 2015.