

**Manufacturer: LR ETANCO (FRANCE)**

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**Product name:**

## DRILLNOX STAR 3.5 PI TB12 A2 (304) Ø 5.5 x L

**Application:**

Fastening facade siding onto steel frame.

**Description:**

Self-drilling screw Ø 5.5 mm bi-metal  
Aesthetic pan head Ø 12 mm, « STAR 25 » pattern, natural or painted with baked EPOXY paint.

Pitch of 1,81 mm.

Can be assembled with stainless steel VULCA washer Ø10 or Ø16 mm.

**Drilling capacity (CP):**

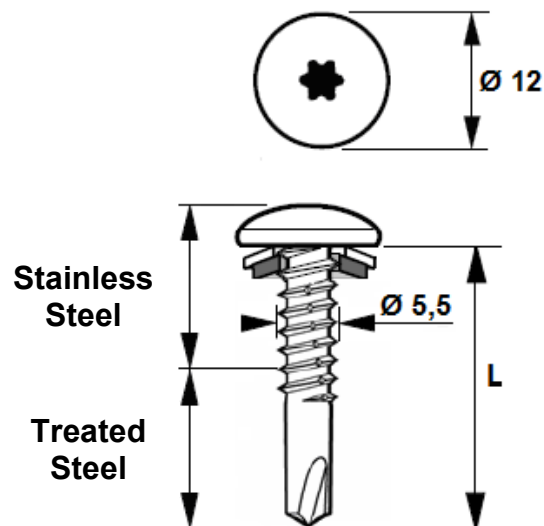
1,5 to 3,5 mm into steel sheet.

**Material:**

Body : Austenitic stainless steel A2 - AISI 304 - 1.4301 - X5CrNi18-10.

Drill point and firsts threads: Cemented steel.

Washer : Stainless steel A2 + vulcanized EPDM, 2 mm, 70 Shore A.



**Material, coating and test of corrosion resistance:**

- A2: Austenitic stainless steel A2 AISI 304

The corrosion resistance is defined by Kesternich test (sulphur dioxide corrosion with general dampness condensation) according to NF EN 3231 (2 l)

Resisted more than 30 cycles before the appearance of red rust

Salt spray test according to NF ISO 9227 (March 2007):

No trace of red rust after 1000 hours

Drill point with coating:

No trace of red rust after 200 hours on drill point and firsts threads

**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 Can be affected by chlorinated solvents

## Drilling time performance:

Conditions: a) Test material: Structural steel S355JR  
 b) Tool used: Drilling test with FEIN SCS 6.3-19 X 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

\* Real capacity of 1800 revolutions per minute

## Drilling capacity, diameter, length (in mm) and packaging:

Drilling capacity CP	Ø x Length	Maximum assembly capacity CA	Aesthetic pan head Ø	Packaging
1.5 to 3.5	5.5 x 28	7	12	100
1.5 to 3.5	5.5 x 28 + VSS 10	5	12	100
1.5 to 3.5	5.5 x 28 + VSS 16	5	12	100
1.5 to 3.5	5.5 x 34	14	12	100
1.5 to 3.5	5.5 x 34 + VSS 10	12	12	100
1.5 to 3.5	5.5 x 34 + VSS 16	12	12	100

## Tensile steel failure (Value in daN):

Characteristic resistance

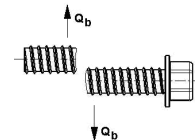
$\bar{x} = 784 \text{ daN}$



## Shear steel failure – 0.6 x Rm (Value in daN):

Characteristic resistance

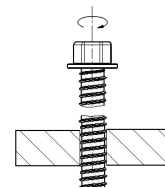
$\bar{x} = 470 \text{ daN}$



## Torque steel failure (Value in daN):

Characteristic resistance

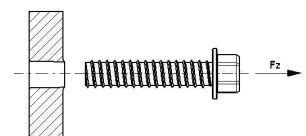
$\bar{x} = 7.5 \text{ Nm}$



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

Characteristic resistance

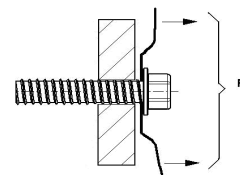
Support thickness (mm) - Aluminium 6060
2.5 mm
<b>342</b>
The indicated values do not include safety factors and are indicative



## Pull-out failure – Top steel (Pk in daN) – According to NF P 30-314:

Characteristic resistance

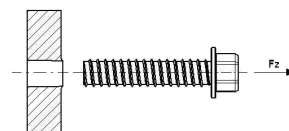
Thickness of sheet (mm)				
Top steel S320	Support steel S320		Support steel S280	Support steel S235
0.75 mm	1.5 mm	2 mm	2.5 mm	3 mm
	<b>220</b>	<b>332</b>	<b>438</b>	<b>532</b>
The indicated values do not include safety factors and are indicative				



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

Characteristic resistance

Support thickness (mm)			
Steel S320	Steel S280		Steel S235
1.5 mm	2 mm	2.5 mm	3 mm
<b>220</b>	<b>332</b>	<b>438</b>	<b>532</b>
The indicated values do not include safety factors and are indicative			



## According to French standard:

Professional cladding rule

## Recommended tool:

Screwdriver FEIN SCS 6,3 -19X power consumption 400 W mini with torque limiter (depth stop) and depth gauge  
Drive bit : STAR 25

## Labelling:

DRILLNOX STAR 3,5 PI TB12 / SSA2 - Ø 5.5 x L + code  
DRILLNOX STAR 3,5 PI TB12 / SSA2 - Ø 5.5 x L + VSS 10 + code  
DRILLNOX STAR 3,5 PI TB12 / SSA2 - Ø 5.5 x L + VSS 16 + code

## Quality control:

ISO 9001 : 2015

These products are intended for professional installers landlords whose the related service includes supply and installation. In accordance with rules and normative regulation, it's their responsibility to check that the use of these products is in conformity to themselves needs and their customers. They have to insure as well the adequacy of this material with their real operating conditions. The company excludes any guarantee for the use that does not respect these conditions. His responsibility is limited to the strict compliance with the specifications stipulated on the customer's purchase order. The guarantee is limited to the replacement of defective parts acknowledged by the Company's technical service, without workforce costs and travel expenses. It excludes material damage or physical injury and others direct or indirect damages, material or immaterial, which may result from defective parts including installation that not complying with the use for which they are designed and produced.