

**Manufacturer: ETANCO (FRANCE)**

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**Product name:**

## LR IT-FIX SHUTTER – Ø 80 THERMAL BREAK POINT

**Application:**

Thermal break point for medium load

Fastening of reported elements on facade with external thermal insulation such as shutters, façade balustrades, air conditioners, ...

Non-structural loads

**Description:**

Thermal break solution for fixing elements on constructions equipped with external thermal insulation.

IT-FIX SHUTTER is constituted of 4 elements: 1 – Drilling area / 2 – Gavage Network / 3 – Spacer / 4 – Anchors.

**Material:**

Spacer: Polyamide

Anchors: Galvanized steel 5µm

**Characteristics:**

Spacer: Ø 80 mm - Length 30 to 240 mm

Anchors: Ø 6 to Ø 8 mm

**Product benefits:**

Suitable to external and internal thermal insulation.

Ideal for new construction or renovation.

Guarantees the continuity of the insulation.

Remove all point thermal bridges.

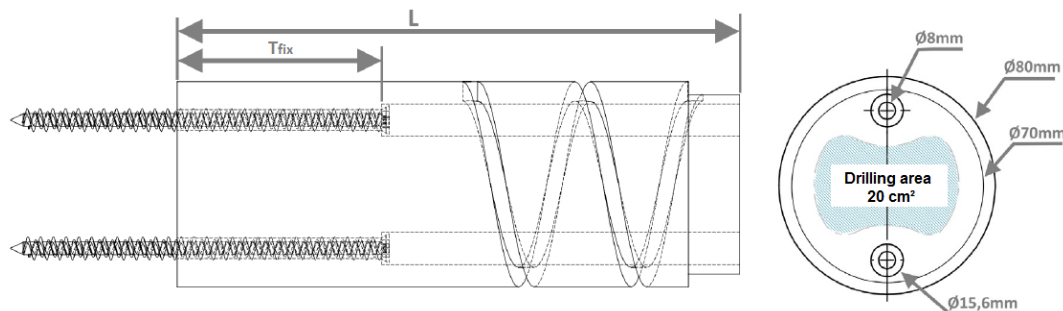
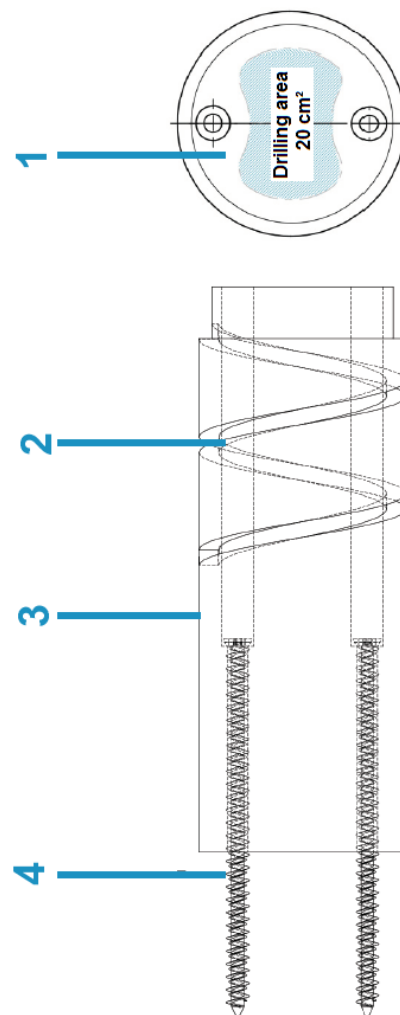
High thermal performance thanks to composite materials used.

No formation of condensation in the construction.

Provides a robust connection between constructions equipped with external thermal insulation and the reported elements.

Installation before or after the external thermal insulation.

Installation easy and fast.

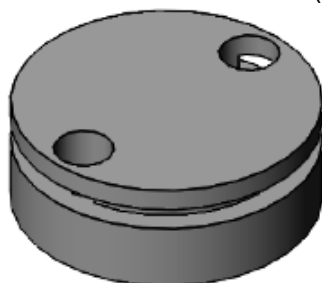


## References LR IT-FIX SHUTTER :

| LR IT-FIX SHUTTER | Insulation thickness (mm) | Spacer Ø (mm) | L (mm)     | d (mm) | T <sub>fix</sub> (mm) | Cond. | Code      |
|-------------------|---------------------------|---------------|------------|--------|-----------------------|-------|-----------|
| 80x10             | 10                        | 80            | <b>30</b>  | 6 à 8  | 20                    | 6     | 364 309 * |
| 80x20             | 20                        | 80            | <b>40</b>  | 6 à 8  | 20                    | 6     | 364 313 * |
| 80x30             | 30                        | 80            | <b>50</b>  | 6 à 8  | 20                    | 6     | 364 311 * |
| 80x80             | 80                        | 80            | <b>100</b> | 6 à 8  | 30                    | 6     | 364 315   |
| 80x100            | 100                       | 80            | <b>120</b> | 6 à 8  | 50                    | 6     | 364 316   |
| 80x120            | 120                       | 80            | <b>140</b> | 6 à 8  | 80                    | 6     | 364 317   |
| 80x140            | 140                       | 80            | <b>160</b> | 6 à 8  | 80                    | 6     | 364 318   |
| 80x160            | 160                       | 80            | <b>180</b> | 6 à 8  | 80                    | 6     | 364 319   |
| 80x180            | 180                       | 80            | <b>200</b> | 6 à 8  | 80                    | 6     | 364 320   |
| 80x200            | 200                       | 80            | <b>220</b> | 6 à 8  | 80                    | 6     | 364 321   |
| 80x220            | 220                       | 80            | <b>240</b> | 6 à 8  | 80                    | 6     | 364 322   |

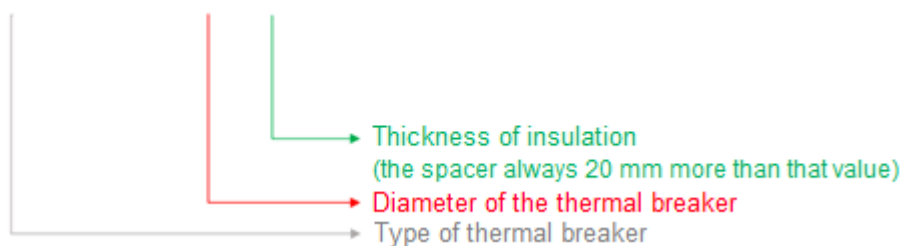
d : Anchor diameter – T<sub>fix</sub> : Thickness to fix for the anchor – L : Length of the spacer

\* Installation of the product only before the external thermal insulation (under the façade render or the cladding)

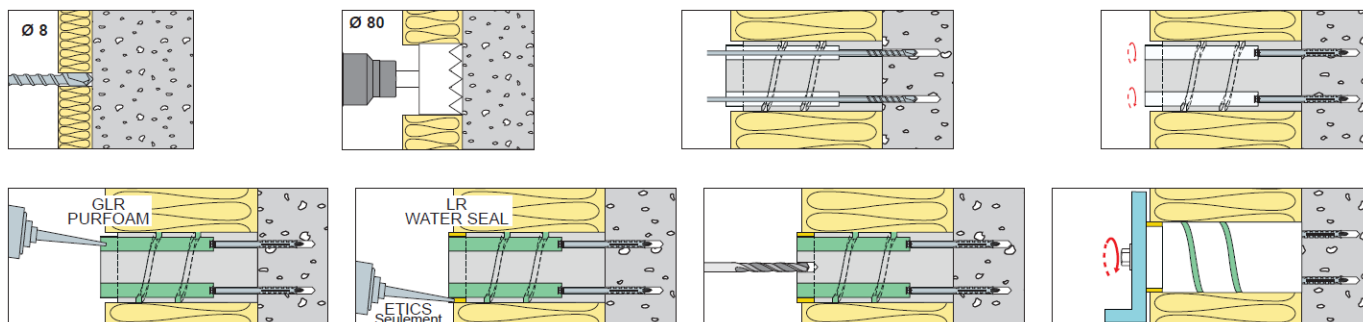


## Interpretation of designations:

LR IT-FIX SHUTTER **80x160**



## Installation:



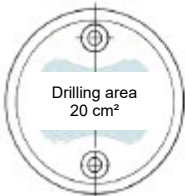
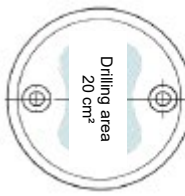
MS polymeric sealant LR WATERSEAL according to CSTB 3035 v2 of July 2013.

## Thermal performances:



| Coefficient of punctual thermal loss $\chi$ for one LR IT-FIX SHUTTER (W/K) |   |   |        |        |
|---|---|---|--------|--------|
| Reference LR IT-FIX SHUTTER   | Thermal conductivity of insulation $\lambda$ (W/m.K) <sup>(1)</sup> | Thickness of insulation (mm) <sup>(2)</sup> |        |        |
|   |   | 100   | 200    | 300    |
| Ø 80  | 0,025   | 0,0097                                      | 0,0054 | 0,0037 |
|   | 0,035   | 0,0089                                      | 0,0050 | 0,0035 |
|   | 0,050   | 0,0078                                      | 0,0046 | 0,0033 |

(1) Linear interpolation is permitted for intermediate values of the thermal conductivity of the insulation.  
 (2) Linear interpolation is permitted for intermediate values of insulation thickness.

## Mechanical performances:

| Admissible load in tension and shear of one LR IT-FIX SHUTTER (daN)<br>Anchor MARCOVIS FM-X5 TF Ø 8 in concrete C20/25 <sup>(3)</sup> |                    |   |   |
|---|--------------------|---|---|
| Reference IT-FIX SHUTTER  | Tension $T_{Rd,s}$ | Admissible load in extremity of one LR IT-FIX SHUTTER - $V_{rd,s}$                |   |
|   |                    |  |  |
| 80x10   | 198                | 49  | 79  |
| 80x20   |                    | 49  | 79  |
| 80x30   |                    | 49  | 79  |
| 80x80   |                    | 49  | 79  |
| 80x100  |                    | 41  | 66  |
| 80x120  |                    | 35  | 56  |
| 80x140  |                    | 30  | 49  |
| 80x160  |                    | 27  | 44  |
| 80x180  |                    | 24  | 39  |
| 80x200  |                    | 22  | 36  |
| 80x220  |                    | 20  | 33  |

(3) Load of alone LR IT-FIX SHUTTER, without taking into account screw to fix the plate.

| Admissible load in tension and shear of one LR IT-FIX SHUTTER (daN)<br>Anchor BATIFAST Ø7,5 in concrete C20/25 <sup>(3)</sup> |                    |   |   |
|---|--------------------|---|---|
| Reference IT-FIX SHUTTER  | Tension $T_{Rd,s}$ | Admissible load in extremity of one LR IT-FIX SHUTTER - $V_{rd,s}$                  |   |
|   |                    |  |  |
| 80x10   | 300                | 75  | 120   |
| 80x20   |                    | 75  | 120   |
| 80x30   |                    | 75  | 120   |
| 80x80   |                    | 75  | 120   |
| 80x100  |                    | 62  | 100   |
| 80x120  |                    | 54  | 86  |
| 80x140  |                    | 47  | 75  |
| 80x160  |                    | 42  | 67  |
| 80x180  |                    | 38  | 60  |
| 80x200  |                    | 34  | 55  |
| 80x220  |                    | 31  | 50  |

(3) Load of alone LR IT-FIX SHUTTER, without taking into account screw to fix the plate.

Ultimate load for dimensioning at the ULS: Take admissible load x 1,4

The installation in others materials and the utilisation of others anchors are possible. In that case, Tests on site are necessary to valid the mechanical performances of the thermal break solution LR IT-FIX SHUTTER.

### Recommended anchors:

| Examples of anchors <sup>(4)</sup> depending on the support material           |   |
|--|---|
| Material   | Anchor  |
| Concrete   | MARCOVIS FM-X5 TF Ø 8<br>MARCOVIS FM-TXT TF Ø 8<br>BATIFAST Ø 7,5 |
| Solid material   | MARCOVIS FM-X5 TF Ø 8<br>MP3 M6x45 or M8x50                       |
| Hollow material  | CHIMFORT + Sleeve 12x50 + threaded rod M6<br>MP3 M6x45 or M8x50   |
| <i>(4) For the installation of the anchor, see technical data sheet of it.</i> |   |

### According to French standard:

NF EN ISO 10211 – Thermal bridge in the construction

### Recommended tools:

Hammer drill  
Concrete bit Ø 8 mm and length following application  
Drill set LR IT-FIX Ø82x150 – Code : 364 401 000  
Concrete bit : Ø following anchor and length following application  
Polyurethane foam type GLR PURFOAM  
MS polymeric sealant type LR WATER SEAL or LR WATER JOINT

### Labelling:

On packaging: LR IT-FIX SHUTTER – Ø spacer x Insulation thickness – 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.