

CSTB

le futur en construction

84, avenue Jean-Jaurès
Champs-sur-Marne
FR-77447 Marne-la-Vallée Cedex 2

Tél. : + 33 (0)1 64 68 82 82
Site internet : www.cstb.fr



Member of EOTA
www.eota.eu

European Technical Assessment

ETA-08/0239 of 2025/08/11

English translation prepared by CSTB – Original version in French language

GENERAL PART

**Technical Assessment Body issuing the European Technical Assessment:
Centre Scientifique et Technique du Bâtiment (CSTB)**

Trade name of the construction product: Fastener LR ETANCO for systems of mechanically fastened flexible roof waterproofing membranes

Product family to which the construction product belongs: Product Area Code: 22
Roof kits

Manufacturer: LR ETANCO
Parc Les Erables – Bât 1
66 Route de Sartrouville
BP 49
F-78231 LE PECQ Cedex

Manufacturing plant: LR ETANCO
ZI Rue Clos Reine
BP 60073
78410 AUBERGENVILLE

This European Technical Assessment contains: 82 pages including 69 Annexes which form an integral part of this assessment

This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of: European Assessment Document : EAD 030351-00-0402 - february 2019 - "Systems of mechanically fastened flexible roof waterproofing sheets".

This version replaces: ETA -08 /0239 on 2018/05/20

Les traductions de cette Évaluation Technique Européenne dans d'autres langues doivent correspondre entièrement au document d'origine délivré et doivent être identifiées comme telles.

Cette Évaluation Technique Européenne doit être communiquée dans son intégralité, y compris par voie électronique (sauf l'(les) Annexe(s) confidentielle(s) référencées ci-dessus). Cependant, elle peut être reproduite partiellement, avec l'accord écrit du CSTB. Toute reproduction partielle doit être identifiée en tant que telle.

SPECIFIC PART
1. Technical description of the product

- The fasteners for systems of mechanically fastened flexible roof waterproofing membrane (MEFAWAME), subject of this ETA, are fasteners composed of a fastening element (screw or nail) and a distribution washer. These fasteners mechanically fasten a waterproofing membrane to the bearing structure.
- The different fasteners are :

Fastener	Distribution washer	Substrate
EVF 2C	82 x 40 R SC	Timber support
EVDF 2C	82 x 40 R SC	
EVF 2C	82 x 40 R DF	
EVDF 2C	82 x 40 R DF	
EVDF 2C	82 x 40 R DF code 294712	
EVF 2C	40 x 40	
EVDF 2C	40 x 40	
EVF 2C	Ø 40	
EVDF 2C	Ø 40	
MULTIFAST TF	82 x 40 R SC	
MULTIFAST TB INOX A2	Etancoplast HP6 L 82 x 40	
MULTIFAST TB INOX A2	Etancoplast HP6 L Ø 40	
EGB 2C	Etancoplast HP4 L 82 x 40	
EGB 2C	Etancoplast-P T80 x 40	
EGB 2C	Etancoplast-P Ø 50	
VMS 2C	Etancoplast HP4 L 82 x 40	
VMS 2C	Etancoplast HP4 L Ø40	
VMS 2C	Etancoplast P T80 x40	
VMS 2C	Etancoplast-P Ø50	
MULTIFAST TB INOX A2	82 x 40 R	
MULTIFAST TB DF INOX A2	82 x 40 R DF	
MULTIFAST TB INOX A2	40 x 40	
MULTIFAST TB INOX A2	Ø 40	
MULTIFAST TB INOX A2	Etancoplast HP6L Ø40	
MULTIFAST TB INOX A2	Etancoplast HP6L 82 x 40	
NAILFIX GàC	Ø 40	Concrete support
NAILFIX GàC	40 x 40	
NAILFIX GàC	82 x 40 RSC	
BETOFAST TT 2C	Etancoplast T 80 x 40	
BETOFAST TT 2C	Etancoplast 50	
BETOFAST TT 2C	Etancoplast HP4L Ø 40	
BETOFAST TT 2C	Etancoplast HP4L 82 x 40	
BETOFAST TH 3C	82 x 40 R	
BETOFAST TH DF 3C	82 x 40 R	
BETOFAST TB Tx/3C	Etancoplast HP6L 82 x 40	
BETOFAST TB Tx/3C	Etancoplast HP6L Ø40	

EVF 2C	82 x 40 R DF	Profiled metal decking substrate (standard)
EVDF 2C	82 x 40 R DF	
EVDF 2C	82 x 40 R DF code 294 712	
EVDF 2C	40 x 40 DF (Axter)	
EVDF 2C	64 x 64	
EVF 2C	40 x 40	
EVDF 2C	40 x 40	
EVF 2C	Ø 40	
EVDF 2C	Ø 40	
EVF 2C	82 x 40 R SC	
EVDF 2C	82 x 40 R SC	
EVB DF 2C	40 x 40	
EHBDF 2C	82 x 40 R DF	
EVBDF 2C	82 x 40 R SC	
EVB DF 2C	82 x 40 R DF	
EVB DF 2C	82 x 40 R DF code 294712	
EVB DF 2C	Ø 40	
EGB 2C	Etancoplast 50	
EGB 2C	Etancoplast T 80 x 40	
EGB 2C	Etancoplast-P T80 x 40	
EGB 2C	Etancoplast-P Ø 50	
EGB 2C	Etancoplast HP 82 x 40	
EGB 2C	Etancoplast HP4 L 82 x 40	
EGB 2C	Etancoplast HP4 L Ø40	
ISODRILL TH DF	82 x 40 R DF	
VMS 2C	82 x 40 RDF	
VMS 2C	40 x 40	
VMS 2C	Etancoplast HP4 L 82 x 40	
VMS 2C	Etancoplast HP4 L Ø40	
VMS 2C	64 x 64	
VMS 2C	40 x 40 (Axter)	
VMS 2C	Ø 40	
ISODRILL TT	82 x 40 R DF	
ISODRILL TT	Etancoplast T 80 x 40	
ISODRILL TT	Etancoplast 50	
ISODRILL TT	Ø 40	
ISODRILL TT	40 x 40	
ISODRILL TT	Etancoplast HP4 L 82 x 40	
ISODRILL TT	Etancoplast HP4 L Ø40	
PER	40 x 40 SC	
FASTOVIS 3036 TF 2C	82 x 40 R DF	
FASTOVIS 3036 TF 2C	40 x 40	
FASTOVIS 3036 TF 2C	Ø 40	
FASTOVIS 3036 TF DF 2C	82 x 40 R DF	
FASTOVIS 3036 TF DF 2C	40 x 40	
FASTOVIS 3036 TF DF 2C	Ø 40	
FASTOVIS 3036 TF 2C	Etancoplast HP6L 82 x 40	
FASTOVIS 3036 TF 2C	Etancoplast HP6L Ø40	
PER Ø 4.8 mm	40 x 40	
PER Ø 4.8 mm	82 x 40 SC	
RER Ø 4.8 mm	Ø 40	
PER Ø 5 mm	82 x 40 SC	
PER Ø 5 mm	40 x 40	
RER Ø 5 mm	Ø 40	
FASTOVIS 3036 TF 2C	Ø 40	
FASTOVIS 3036 TF 2C	40 x 40	
FASTOVIS 3036 TF DF 2C	Ø 40	
FASTOVIS 3036 TF DF 2C	40 x 40	
FASTOVIS 3036 TF 2C	82 x 40 R DF	
FASTOVIS 3036 TF DF 2C	82 x 40 R DF	
		Profiled metal decking substrate (acoustic)

FASTOVIS 3036 TF 2C	Etancoplast HP6L 82 x 40	
FASTOVIS 3036 TF 2C	Etancoplast HP6L Ø40	
FASTOVIS 3036 TF DF 2C	40 x 40 DF (Axter)	
PER Ø 4.8 mm	40 x 40	
RER	40 x 40	
RER Ø 4.8 mm	Ø 40	
PER Ø 4.8 mm	82 x 40 R-DFSC	
FASTOVIS 3036 TF 2C	40 x 40	
FASTOVIS 3036 TF DF 2C	40 x 40	

Composition of the fasteners

Fastening elements

- EVDF 2C: hardened carbon steel screw with thread under head, with a diameter of 4,8 mm, length L and with a 12 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- EVF 2C: hardened carbon steel screw, with a diameter of 4,8 mm, length L and with a 12 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- EVBDF 2C: hardened carbon steel screw with thread under head, with a diameter of 4,8 mm, length L and with a 12 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- VMS 2C 4.8xL: hardened carbon steel screw. Diameter of 4,8 mm, length L and with a 8.5 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- ISODRILL TT: stainless steel screw. Diameter of 4,8 mm, length L and with a 8,5 mm circular head. A4 (1.4404) Stainless steel.
- FASTOVIS 3036 TF 2C : hardened carbon steel screw. Diameter of 6,5 mm, length L and with a 11 mm countersunk head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- FASTOVIS 3036 TF DF 2C : hardened carbon steel screw with thread under head, with a diameter of 6,5 mm, length L and with a 11 mm countersunk head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- RER : Aluminium rivet. Diameter of 4,8 mm, length L and with a 10 mm circular head.
- PER : Aluminium rivet. Diameter of 4,8 mm, length L and with a 10 mm circular head.
- PER : Aluminium rivet. Diameter of 5 mm, length L and with a 10 mm circular head.
- BETOFAST TH 3C : hardened carbon steel screw, with a diameter of 6,6 mm, length L and with a 8 mm hexagonal head. Supracoat corrosion protection. Resistance at 30 Kesternich cycles (EN ISO 6988).
- BETOFAST TH DF 3C : hardened carbon steel screw with thread under head, with a diameter of 6,6 mm, length L and with a 8 mm hexagonal head. Supracoat corrosion protection. Resistance at 30 Kesternich cycles (EN ISO 6988).
- BETOFAST TT 2C: hardened carbon steel screw. Diameter of 4,8 mm, length L and with a 8,5 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- NAILFIX GàC: carbon steel nail diameter 4,8 mm, length L with a 10 circular head. Hot deep galvanized corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988).
- MULTIFAST TB INOX A2 : Stainless steel screw. Diameter of 6 mm, length L and with a 12 mm circular head. A2 (1.4301) stainless steel.
- MULTIFAST TB DF INOX A2: Stainless steel screw with thread under head. Diameter of 6 mm, length L and with a 12 circular head. A2 (1.4301) stainless steel.
- EGB 2C: hardened carbon steel screw. Diameter of 4,8 mm, length L and with a 12 mm circular head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988)
- EHB DF 2C: hardened carbon steel screws with thread under head, with a diameter of 4,8 mm, length L and with a 8 mm hexagonal head. Supracoat corrosion protection. Resistance at 15 Kesternich cycles (EN ISO 6988)
- ISODRILL TH DF: Stainless steel screw with thread under head, with a diameter of 4,8 mm; length L and with a 8 mm hexagonal head. A4 (1.4304) stainless steel.

- MULTIFAST TF: Stainless steel screw. Diameter of 6 mm, length L and with a 11 mm countersunk head. A2 (1.4301) stainless steel

Distribution washers

- Ø40: steel plate Ø40 mm, thickness 0,8 mm. Hole Ø 4,5 mm Aluzinc AZ 150 protection.
- Ø40: steel plate Ø40 mm, thickness 0,8 mm. Hole Ø 6,2 mm Aluzinc AZ 150 protection.
- Ø40: steel plate Ø40 mm, thickness 0,8 mm. Hole Ø 7 mm Aluzinc AZ 150 protection.
- 82x40 R: reinforced steel plate 82 x 40 mm, thickness 1.0 mm with punched inside cone. Hole Ø 5,1 mm. Aluzinc AZ 150 protection
- 82x40 R: reinforced steel plate 82 x 40 mm, thickness 1.0 mm with punched inside cone. Hole Ø 6,2 mm. Aluzinc AZ 150 protection
- 82x40 R: reinforced steel plate 82 x 40 mm, thickness 1.0 mm with punched inside cone. Hole Ø 6 mm. Aluzinc AZ 150 protection
- 82x40 R SC: reinforced steel plate 82 x 40 mm, thickness 1.0 mm with punched inside cone. Hole Ø 9 mm. Aluzinc AZ 150 protection
- 82x40 R SC: reinforced steel plate 82 x 40 mm, thickness 1.0 mm with punched inside cone. Hole Ø 6.4 mm. Aluzinc AZ 150 protection
- 82 x 40 R DF (294712): reinforced steel plate 82 x 40 mm, thickness 10/10e mm with punched inside cone. Hole Ø 5 mm. Aluzinc AZ 150 protection.
- 40 x 40: steel plate 40 x 40 mm. Thickness 8/10e. Hole Ø 6,2 mm. Aluzinc AZ 150 protection.
- 40 x 40: steel plate 40 x 40 mm. Thickness 8/10e. Hole Ø 4,5 mm. Aluzinc AZ 150 protection.
- 40 x 40: steel plate 40 x 40 mm. Thickness 8/10e. Hole Ø 7 mm. Aluzinc AZ 150 protection.
- 64 x 64: steel plate 64 x 64 mm, thickness 8/10e. Hole Ø 6 mm. Aluzinc AZ 150 protection.
- 40 x 40 (Axter): steel plate 40 x 40 mm with a border, thickness 8/10e. Hole Ø 4.8 mm. Aluzinc AZ 150 protection.
- Etancoplast 50: Ø 50 polyamid plastic sleeve with shaft.
- Etancoplast T80 x 40: polyamid Ø 73 x 40 plastic sleeve with shaft.
- Etancoplast HP4L Ø 40: polyamide Ø 40 plastic sleeve with shaft.
- Etancoplast HP4L 82 x 40: polyamide Ø 82 x 40 plastic sleeve with shaft.
- Etancoplast -P T80 x 40: polypropylene Ø 80 x 40 plastic sleeve with shaft.
- Etancoplast HP6 82 x 40: polyamide Ø 82 x 40 plastic sleeve with shaft.
- Etancoplast HP6L 82 x 40: polyamide Ø 82 x 40 plastic sleeve with shaft.
- Etancoplast-P 50: Ø 50 polypropylen plastic sleeve with shaft.

2. Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

The fasteners for systems of mechanically fastened flexible membranes are used to fasten waterproofing membranes which protect the roof surfaces against penetration of atmospheric water

The bearing elements are metallic, aerated concrete, timber and concrete. In the manufacturer's technical dossier (MTD) to this European technical assessment (ETA) the manufacturer gave information concerning the substrate on which the fasteners can be used.

The verifications which are based on this ETA give reason for the assumption of an intended working life of the roof waterproofing of at least 10 years.

3. Performances of the product and references to the methods used for their assessment

Performances of the fasteners, related to the basic requirements for construction works (hereinafter BWR), were determined according to EAD 030351-00-0402 of February 2019 - "Systems of mechanically fastened flexible roof waterproofing sheets"..

These performances, given in the following paragraphs, are valid as long as the components are the ones described in § 1 and Annexes 1 to 69 of this ETA.

3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

3.2 Safety in case of fire (BWR 2)

Reaction to fire: No performance determined

External fire performance: No performance determined

3.3 Hygiene, health and the environment (BWR 3)

According to Technical Report EOTA n° 034, the product does not contain dangerous substance.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Axial loading

Fastener	Thickness of support [mm]	Characteristic axial load $R_{k(1)}$ [N]	Material support
<i>Profiled metal decking substrate</i>			
ISODRILL TT + 82 x 40 R DF	0.7	1340	S320GD
ISODRILL TT + 40 x 40	0.7	1340	S320GD
ISODRILL TT + Ø40	0.7	1310	S320GD
ISODRILL TT + Etancoplast 50	0.7	1370	S320GD
ISODRILL TT + Etancoplast T80 x 40	0.7	1320	S320GD
ISODRILL TT + Etancoplast HP4 L 82 x 40	0.7	1320	S320GD
ISODRILL TT + Etancoplast HP4 L Ø40	0.7	1330	S320GD
EGB 2C + Etancoplast 50	0.7	1430	S320GD
EGB 2C + Etancoplast T80 x 40	0.7	1430	S320GD
EGB 2C + Etancoplast-P T80 x 40	0.7	1440	S320GD
EVDF 2C + 40 x 40 DF (Axter)	0.7	1640	S320GD
EVDF 2C + 64 x 64	0.7	1640	S320GD
EGB 2C + Etancoplast-P Ø50	0.7	1440	S320GD
EGB 2C + Etancoplast HP4 L 82 x 40	0.7	1430	S320GD
EGB 2C + Etancoplast HP4 L Ø 40	0.7	1440	S320GD
VMS 2C + 82 x 40 R DF	0.7	1660	S320GD
VMS 2C + 40 x 40	0.7	1740	S320GD
VMS 2C + Ø40	0.7	1710	S320GD
VMS 2C + 40 x 40 (Axter)	0.7	1660	S320GD
VMS 2C + 64 x 64	0.7	1700	S320GD
VMS 2C + Etancoplast HP4 L 82 x 40	0.7	1690	S320GD
VMS 2C + Etancoplast HP4 L Ø40	0.7	1640	S320GD
EVDF 2C + 82 x 40 R DF	0.7	1740	S320GD
EVDF 2C + 82 x 40 R DF code 294 712	0.7	1640	S320GD
EVDF 2C + 82 x 40 R SC	0.7	1740	S320GD
EVDF 2C + 40 x 40	0.7	1640	S320GD
EVDF 2C + Ø40	0.7	1620	S320GD
EVF 2C + Ø40	0.7	1640	S320GD
EVF 2C + 82 x 40 R DF	0.7	1740	S320GD
EVF 2C + 82 x 40 R SC	0.7	1740	S320GD
EVF 2C + 40 x 40	0.7	1660	S320GD
EVB DF 2C + 40 x 40	0.7	1380	S320GD
EVB DF 2C + 82 x 40 R DF	0.7	1400	S320GD
EVB DF 2C + 82 x 40 R SC	0.7	1420	S320GD
EVB DF 2C + 82 x 40 R DF code 294712	0.7	1400	S320GD
EVB DF 2C + Ø40	0.7	1410	S320GD
EHB DF 2C + 82 x 40 R DF	0.7	1350	S320GD
ISODRILL TH DF + 82 x 40 R DF	0.7	1350	S320GD
PER Ø 5 + 40 x 40	0.7	1020	S320GD
PER Ø 5 + 82 x 40 SC	0.7	1020	S320GD
PER Ø 5 + Ø 40	0.7	1020	S320GD
PER + 82 x 40 R SC	0.7	1300	S320GD
PER Ø 4.8 + 40 x 40	0.7	1320	S320GD
RER Ø 4.8+ Ø 40	0.7	1340	S320GD
FASTOVIS 3036 TF 2C + 82 x 40 R DF	0.7	1900	S320GD
FASTOVIS 3036 TF 2C + 40 x 40	0.7	1870	S320GD
FASTOVIS 3036 TF 2C Ø40	0.7	1870	S320GD

FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	0.7	1900	S320GD
FASTOVIS 3036 TF DF 2C + 40 x 40	0.7	1870	S320GD
FASTOVIS 3036 TF 2C + Etancoplast HP6L 82 x 40	0.7	1890	S320GD
FASTOVIS 3036 TF 2C + Etancoplast HP6L Ø 40	0.7	1890	S320GD
Profiled metal decking substrate (acoustic)			
PER Ø 4.8 + 82 x 40 R SC	0.7	1300	S320GD
PER Ø 4.8 + 40 x 40	0.7	1320	S320GD
RER Ø 4.8 + Ø40	0.7	1340	S320GD
FASTOVIS 3036 TF 2C + 82 x 40 R DF	0.7	1900	S320GD
FASTOVIS 3036 TF 2C + Ø40	0.7	1870	S320GD
FASTOVIS 3036 TF 2C + 40 x 40	0.7	1870	S320GD
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	0.7	1900	S320GD
FASTOVIS 3036 TF DF 2C + Ø40	0.7	1870	S320GD
FASTOVIS 3036 TF DF 2C + 40 x 40	0.7	1870	S320GD
FASTOVIS 3036 TF 2C + Etancoplast HP6 L 82 x 40	0.7	1890	S320GD
FASTOVIS 3036 TF 2C + Etancoplast HP6 L Ø40	0.7	1890	S320GD
FASTOVIS 3036 TF DF 2C + 40 x 40 DF (Axter)	0.7	1860	S320GD
Béton			
BETOFAST TT 2C + Etancoplast 50	35	2990	C25/30
BETOFAST TT 2C + Etancoplast T 80 x 40	35	2790	C25/30
BETOFAST TT 2C + Etancoplast HP4L Ø40	35	2990	C25/30
BETOFAST TT 2C + Etancoplast HP4L 82 x 40	35	2990	C25/30
BETOFAST TB Tx/3C + Etancoplast HP6 82 x 40	35	3960	C25/30
BETOFAST TB Tx/3C + Etancoplast HP6L 82 x 40	35	3950	C25/30
BETOFAST TB Tx/3C + Etancoplast HP6 L Ø40	35	3950	C25/30
NAILFIX GàC + 82 x 40 R SC	35	3020	C25/30
NAILFIX GàC + Ø40	35	2960	C25/30
NAILFIX GàC + 40 x 40	35	2600	C25/30
BETOFAST TH 3C + 82 x 40 R	35	6860	C25/30
BETOFAST TH DF 3C + 82 x 40 R	35	6860	C25/30
Aerated concrete support			
MULTIFAST TB INOX A2 + 82 x 40 R	55	1540	500 kg/m ³
MULTIFAST TB INOX A2 + Ø 40	55	1520	500 kg/m ³
MULTIFAST TB INOX A2 + 40 x 40	55	1570	500 kg/m ³
MULTIFAST TB INOX A2 + 82 x 40 R DF	55	1540	500 kg/m ³
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	55	1510	500 kg/m ³
MULTIFAST TB INOX A2 + Etancoplast HP6 L Ø40	55	1510	500 kg/m ³
Wood			
EVDF 2C + 82 x 40 R SC	18	1830	CTBH
EVDF 2C + 82 x 40 R DF	18	1880	CTBH
EVDF 2C + 82 x 40 R DF code 294712	18	1880	CTBH
EVDF 2C + 40 x 40	18	1890	CTBH
EVDF 2C + Ø 40	18	1850	CTBH
EVF 2C + 82 x 40 R SC	18	1850	CTBH
MULTIFAST TF + 82 x 40 R SC	18	1990	CTBH
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	18	1980	CTBH
MULTIFAST TB INOX A2 + Etancoplast HP6L Ø 40	18	1990	CTBH
EGB 2C + Etancoplast HP4 L 82 x 40	18	1640	CTBH
EGB 2C + Etancoplast HP4L Ø 40	18	1640	CTBH
EGB 2C + Etancoplast-P T80 x 40	18	1510*	CTBH
EGB 2C + Etancoplast-P Ø 50	18	1510*	CTBH
VMS 2C + Etancoplast HP4 L 82 x 40	18	1840	CTBH
VMS 2C + Etancoplast-P T80 x 40	18	1510*	CTBH
VMS 2C + Etancoplast-P Ø 50	18	1510*	CTBH
VMS 2C + Etancoplast HP4 L Ø40	18	1850	CTBH
EVF 2C + Ø 40	18	1850	CTBH
EVF 2C + 82 x 40 R DF	18	1880	CTBH
EVF 2C + 40 x 40	18	1890	CTBH

(1) Rk corresponds to the characteristic axial load named "Rk" in l'EAD 030351-00-0402.

* Failure by unwinding

3.4.2 Resistance to unwinding

The fasteners are assessed as resistant to :

rotation of the fastener head $\leq \frac{1}{4}$ turn after 500 cycles

rotation of the fastener head $\leq \frac{1}{2}$ turn after 900 cycles

vertical movement ≤ 1 mm after 900 cycles

3.5 Protection against noise (BWR 5)

3.6 Energy economy and heat retention (BWR 6)

Not relevant.

3.7 Sustainable use of natural resources (BWR 7)

No performance determined.

3.8 Aspects of durability and serviceability

3.8.1 Corrosion resistance

Fastener	Corrosion class ⁽¹⁾
<i>Profiled metal decking substrate (standard)</i>	
ISODRILL TT + 82 x 40 R DF	C15
ISODRILL TT + 40 x 40	C15
ISODRILL TT + Ø40	C15
ISODRILL TT + Etancoplast 50	Npd
ISODRILL TT + Etancoplast T80 x 40	Npd
ISODRILL TT + Etancoplast HP4 L 82 x 40	Npd
ISODRILL TT + Etancoplast HP4 L Ø40	Npd
EGB 2C + Etancoplast 50	C15
EGB 2C + Etancoplast T80 x 40	C15
EGB 2C + Etancoplast-P T80 x 40	C15
EVDF 2C + 40 x 40 DF (Axter)	C15
EVDF 2C + 64 x 64	C15
EGB 2C + Etancoplast-P Ø50	C15
EGB 2C + Etancoplast HP4 L 82 x 40	C15
EGB 2C + Etancoplast HP4 L Ø 40	C15
VMS 2C + 82 x 40 R DF	C15
VMS 2C + 40 x 40	C15
VMS 2C + Ø40	C15
VMS 2C + 40 x 40 (Axter)	C15
VMS 2C + 64 x 64	C15
VMS 2C + Etancoplast HP4 L 82 x 40	C15
VMS 2C + Etancoplast HP4 L Ø40	C15
EVDF 2C + 82 x 40 R DF	C15
EVDF 2C + 82 x 40 R DF code 294 712	C15
EVDF 2C + 82 x 40 R SC	C15
EVDF 2C + 40 x 40	C15
EVDF 2C + Ø40	C15
EVF 2C + Ø40	C15
EVF 2C + 82 x 40 R DF	C15
EVF 2C + 82 x 40 R SC	C15
EVF 2C + 40 x 40	C15
EVB DF 2C + 40 x 40	C15
EVB DF 2C + 82 x 40 R DF	C15
EVB DF 2C + 82 x 40 R DF code 294712	C15
EVB DF 2C + 82 x 40 R SC	C15
EVB DF 2C + Ø40	C15
EHB DF 2C + 82 x 40 R DF	C15
ISODRILL TH DF + 82 x 40 R DF	C15
PER Ø 5 + 40 x 40	C15
PER Ø 5 + 82 x 40 SC	C15
PER Ø 5 + Ø 40	C15
PER Ø 4.8+ 82 x 40 R SC	C15
PER Ø 4.8 + 40 x 40	C15
RER Ø 4.8 + Ø40	C15
FASTOVIS 3036 TF 2C + 82 x 40 R DF	C15
FASTOVIS 3036 TF 2C + 40 x 40	C15
FASTOVIS 3036 TF 2C + Ø 40	C15
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	C15
FASTOVIS 3036 TF DF 2C + 40 x 40	C15
FASTOVIS 3036 TF DF 2C + Ø 40	C15
FASTOVIS 3036 TF 2C + Etancoplast HP6L 82 x 40	C15
FASTOVIS 3036 TF 2C +Etancoplast HP6L Ø 40	C15
<i>Profiled metal decking substrate (acoustic)</i>	

PER Ø 4.8 + 82 x 40 R SC	C15
PER Ø 4.8 + 40 x 40	C15
RER Ø 4.8 + Ø40	C15
FASTOVIS 3036 TF 2C + 82 x 40 R DF	C15
FASTOVIS 3036 TF 2C + Ø40	C15
FASTOVIS 3036 TF 2C + 40 x 40	C15
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	C15
FASTOVIS 3036 TF DF 2C + Ø40	C15
FASTOVIS 3036 TF DF 2C + 40 x 40	C15
FASTOVIS 3036 TF 2C + Etancoplast HP6 L 82 x 40	C15
FASTOVIS 3036 TF 2C + Etancoplast HP6 L Ø40	C15
FASTOVIS 3036 TF DF 2C + 40 x 40 DF (Axter)	C15
Concrete support	
BETOFAST TT 2C + Etancoplast 50	C15
BETOFAST TT 2C + Etancoplast T 80 x 40	C15
BETOFAST TT 2C + Etancoplast HP4L Ø40	C15
BETOFAST TT 2C + Etancoplast HP4L 82 x 40	C15
BETOFAST TB Tx/3C + Etancoplast HP6 L Ø40	C15
BETOFAST TB Tx/3C + Etancoplast HP6L 82 x 40	C15
NAILFIX GàC + 82 x 40 R SC	C15
NAILFIX GàC + Ø40	C15
NAILFIX GàC + 40 x 40	C15
BETOFAST TH 3C + 82 x 40 R	C15
BETOFAST TH DF 3C + 82 x 40 R	C15
Aerated concrete support	
MULTIFAST TB INOX A2 + 82 x 40 R	C15
MULTIFAST TB INOX A2 + Ø 40	C15
MULTIFAST TB INOX A2 + 40 x 40	C15
MULTIFAST TB INOX A2 + 82 x 40 R DF	C15
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	Npd
MULTIFAST TB INOX A2 + Etancoplast HP6L Ø 40	Npdf
Wood	
EVDF 2C + 82 x 40 R SC	C15
EVDF 2C + 82 x 40 R DF	C15
EVDF 2C + 82 x 40 R DF code 294712	C15
EVDF 2C + 40 x 40	C15
EVDF 2C + Ø 40	C15
EVF 2C + 82 x 40 R SC	C15
MULTIFAST TF + 82 x 40 R SC	C15
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	Npd
MULTIFAST TB INOX A2 + Etancoplast HP6 L Ø 40	Npd
EGB 2C + Etancoplast HP4 L 82 x 40	C15
EGB 2C + Etancoplast HP4L Ø40	C15
EGB 2C + Etancoplast-P T80 x 40	C15
EGB 2C + Etancoplast-P Ø 50	C15
VMS 2C + Etancoplast HP4 L 82 x 40	C15
VMS 2C + Etancoplast-P T80 x 40	C15
VMS 2C + Etancoplast-P Ø 50	C15
VMS 2C + Etancoplast HP4 L Ø40	C15
EVF 2C + Ø 40	C15
EVF 2C + 82 x 40 R DF	C15
EVF 2C + 40 x 40	C15

- (1) class C2 = surface corrosion = 0 % after 2 cycles
- (2) class C7 = surface corrosion ≤ 5 % after 7 cycles
- (3) class C15 = surface corrosion ≤ 15 % after 15 cycles

3.8.2 Mechanical resistance/brittleness of the plastic fastener

Fastener	Mechanical resistance before and after heat ageing: drop height [m] ⁽¹⁾
Profiled metal decking substrate (standard)	
ISODRILL TT + 82 x 40 R DF	Npd
ISODRILL TT + 40 x 40	Npd
ISODRILL TT + Ø40	Npd
ISODRILL TT + Etancoplast 50	2.2
ISODRILL TT + Etancoplast T80 x 40	2.2
ISODRILL TT + Etancoplast HP4 L 82 x 40	1
ISODRILL TT + Etancoplast HP4 L Ø40	1
EGB 2C + Etancoplast 50	2.2

EGB 2C + Etancoplast T80 x 40	2.2
EGB 2C + Etancoplast-P T80 x 40	1
EVDF 2C + 40 x 40 DF (Axter)	Npd
EVDF 2C + 64 x 64	Npd
EGB 2C + Etancoplast-P Ø50	1
EGB 2C + Etancoplast HP4 L 82 x 40	1
EGB 2C + Etancoplast HP4 L Ø 40	1
VMS 2C + 82 x 40 R DF	Npd
VMS 2C + 40 x 40	Npd
VMS 2C + Ø40	Npd
VMS 2C + 40 x 40 (Axter)	Npd
VMS 2C + 64 x 64	Npd
VMS 2C + Etancoplast HP4 L 82 x 40	1
VMS 2C + Etancoplast HP4 L 82 x 40	1
EVDF 2C + 82 x 40 R DF	Npd
EVDF 2C + 82 x 40 R DF code 294 712	Npd
EVDF 2C + 82 x 40 R SC	Npd
EVDF 2C + 40 x 40	Npd
EVDF 2C + Ø40	Npd
EVF 2C + Ø40	Npd
EVF 2C + 82 x 40 R DF	Npd
EVF 2C + 82 x 40 R SC	Npd
EVF 2C + 40 x 40	Npd
EVB DF 2C + 40 x 40	Npd
EVB DF 2C + 82 x 40 R DF	Npd
EVB DF 2C + 82 x 40 R SC	Npd
EVB DF 2C + 82 x 40 R DF code 294712	Npd
EVB DF 2C + Ø40	Npd
EHB DF 2C + 82 x 40 R DF	Npd
ISODRILL TH DF + 82 x 40 R DF	Npd
PER Ø 5 + Ø 40	Npd
PER Ø 5 + 82 x 40 R SC	Npd
RER Ø 5 + Ø 40	Npd
PER Ø 4.8 + 82 x 40 R SC	Npd
PER Ø 4.5 + 40 x 40	Npd
RER Ø4.5 + Ø 40	Npd
FASTOVIS 3036 TF 2C + 82 x 40 R DF	Npd
FASTOVIS 3036 TF 2C + 40 x 40	Npd
FASTOVIS 3036 TF 2C Ø 40	Npd
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	Npd
FASTOVIS 3036 TF DF 2C + 40 x 40	Npd
FASTOVIS 3036 TF DF 2C Ø 40	Npd
FASTOVIS 3036 TF 2C + Etancoplast HP6L 82 x 40	1
FASTOVIS 3036 TF 2C + Etancoplast HP6L Ø 40	1
Profiled metal decking substrate (acoustic)	
PER Ø 4.8 + 82 x 40 R SC	Npd
PER Ø 4.8 + 40 x 40	Npd
RER Ø 4.8 + Ø40	Npd
FASTOVIS 3036 TF 2C + 82 x 40 R DF	Npd
FASTOVIS 3036 TF 2C + Ø40	Npd
FASTOVIS 3036 TF 2C + 40 x 40	Npd
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF	Npd
FASTOVIS 3036 TF DF 2C + Ø40	Npd
FASTOVIS 3036 TF DF 2C + 40 x 40	Npd
FASTOVIS 3036 TF 2C + Etancoplast HP6 L 82 x 40	1
FASTOVIS 3036 TF 2C + Etancoplast HP6 L Ø40	1
FASTOVIS 3036 TF DF 2C + 40 x 40 DF (Axter)	Npd
Concrete support	
BETOFAST TT 2C + Etancoplast 50	2.2
BETOFAST TT 2C + Etancoplast T 80 x 40	Npd
BETOFAST TT 2C + Etancoplast HP4L Ø40	1
BETOFAST TT 2C + Etancoplast HP4L 82 x 40	1
BETOFAST TB Tx/3C + Etancoplast HP6 L Ø40	1

BETOFAST TB Tx/3C + Etancoplast HP6L 82 x 40	1
NAILFIX GàC + 82 x 40 R SC	Npd
NAILFIX GàC + Ø40	Npd
NAILFIX GàC + 40 x 40	Npd
BETOFAST TH 3C + 82 x 40 R	Npd
BETOFAST TH DF 3C + 82 x 40 R	Npd
Aerated concrete support	
MULTIFAST TB INOX A2 + 82 x 40 R	Npd
MULTIFAST TB INOX A2 + Ø 40	Npd
MULTIFAST TB INOX A2 + 40 x 40	Npd
MULTIFAST TB INOX A2 + 82 x 40 R DF	Npd
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	1
MULTIFAST TB INOX A2 + Etancoplast HP6L Ø 40	1
Timber support	
EVDF 2C + 82 x 40 R SC	Npd
EVDF 2C + 82 x 40 R DF code 294712	Npd
EVDF 2C + 82 x 40 R DF	Npd
EVDF 2C + 40 x 40	Npd
EVDF 2C + Ø 40	Npd
EVF 2C + 82 x 40 R SC	Npd
MULTIFAST TF + 82 x 40 R sc	Npd
MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40	1
MULTIFAST TB INOX A2 + Etancoplast HP6 L Ø 40	1
EGB 2C + Etancoplast HP4 L 82 x 40	1
EGB 2C + Etancoplast HP4L Ø40	1
EGB 2C + Etancoplast-P T80 x 40	1
EGB 2C + Etancoplast-P Ø 50	1
VMS 2C + Etancoplast HP4 L 82 x 40	1
VMS 2C + Etancoplast-P T80 x 40	1
VMS 2C + Etancoplast-P Ø 50	1
VMS 2C + Etancoplast HP4 L Ø40	1
EVF 2C + Ø 40	Npd
EVF 2C + 82 x 40 R DF	Npd
EVF 2C + 40 x 40	Npd

- (1) Heat ageing of the plastic part of the fastener for 28 days at 80 ± 2 °C.
Drop height ≥ 1.0 m is checked.

3.8.3 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

According to Decision 97/223/EC ¹, the systems of AVCP given in the following table apply:

Product	Intended use	Levels or classes (Reaction to fire)	System
Fasteners for mechanically fastened flexible roof waterproofing membranes	For building works	-	2+

The systems of AVCP are described in Annex V of Regulation (EU) No 305/2011, as amended by Delegated Regulation (EU) No 568/2014.

Rules and conditions for affixing of CE marking conform to article 9 of Regulation (EU) No 305/2011.

4. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

The control plan is a confidential part of the manufacturer's technical dossier (MTD) and is deposited at the CSTB. The control plan isn't included in the published parts of this ETA.

The verifications underlying this ETA have been furnished on samples from the current production. These will replace the initial type-testing. After changing the production process or starting the production in another manufacturing plant the initial type-testing shall be repeated.

The manufacturers of fasteners shall, on the basis of a contract, involve a notified body approved in the field of fasteners for systems of mechanically fastened flexible roof waterproofing membranes for issuing the certificate of conformity CE based on the control plan.

Issued in Marne-la-Vallée on 2025/08/11

by

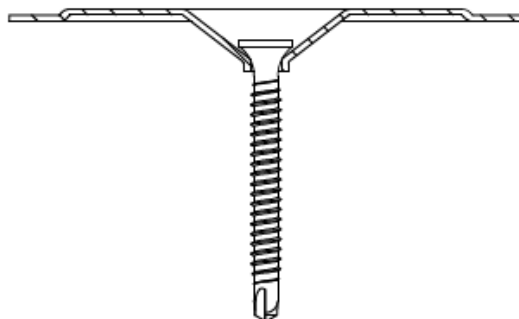
Yannick DUBOIS



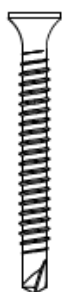
Head of Roof unit

Building Envelope Department

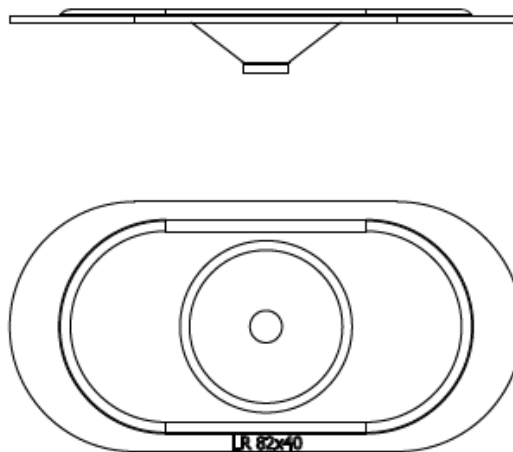
¹ Decisions are published in the *Official Journal of the European Union (OJEU)*, see www.new.eu-lex.europa.eu/oj/direct-access.html.



ISODRILL TT DF



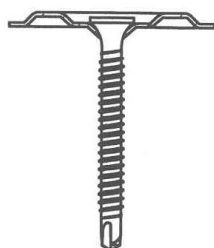
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + 82 x 40 R DF

Annex 1
of European
Technical
Assessment
ETA-08/0239



ISODRILL TT Ø4.8



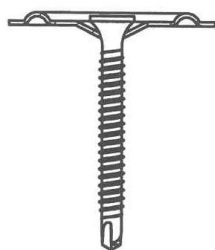
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + 40 x 40

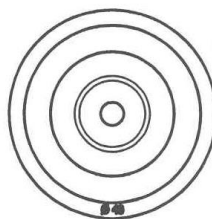
Annex 2
of European
Technical
Assessment
ETA-08/0239



ISODRILL TT Ø4.8



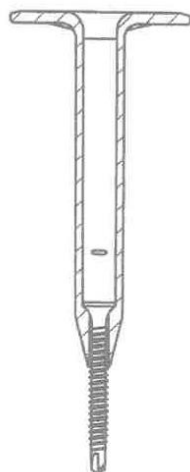
RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

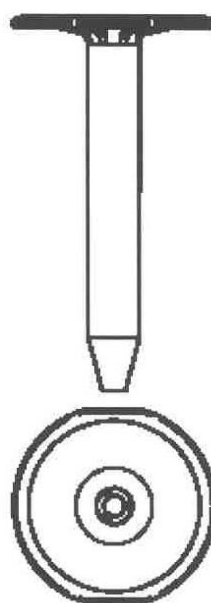
Sketch
ISODRILL TT + Ø 40

Annex 3
o of European
Technical
Assessment
ETA-08/0239



ETANCOPLAST Ø50

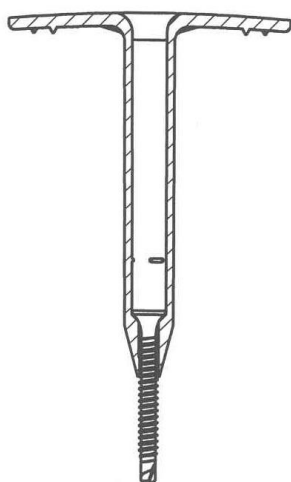
ISODRILL TT Ø4.8



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + Etancoplast 50

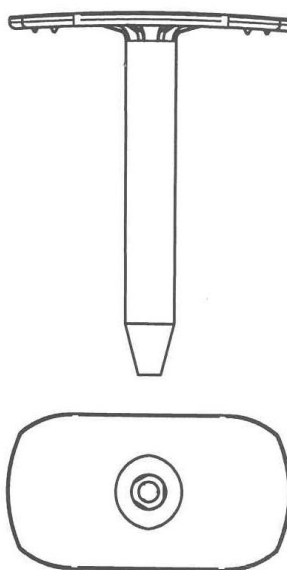
Annex 4
of European
Technical
Assessment
ETA-08/0239



ISODRILL TT Ø4.8



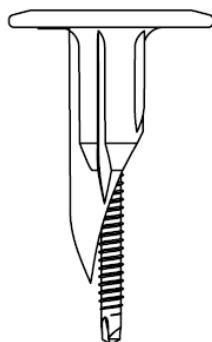
ETANCOPLAST T80x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + Etancoplast T80 x 40

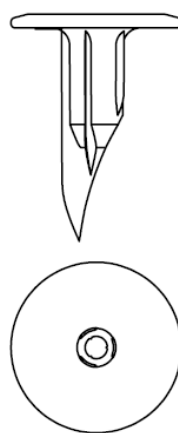
Annex 5
of European
Technical
Assessment
ETA-08/0239



ISODRILL TT Ø4.8



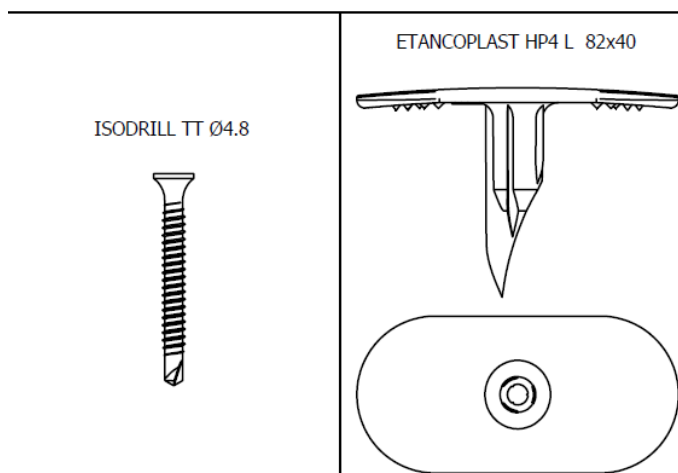
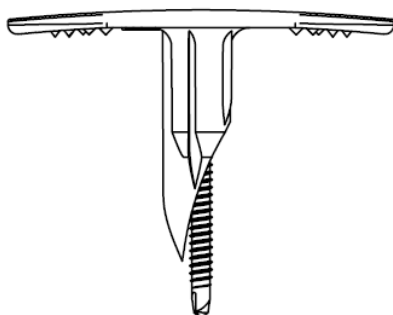
ETANCOPLAST HP4 L Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + Etancoplast HP4 L Ø40

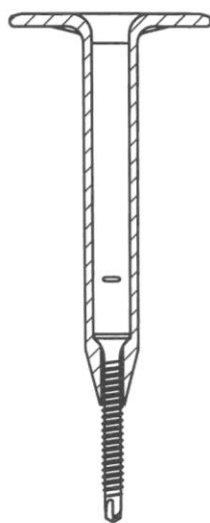
Annex 6
of European
Technical
Assessment
ETA-08/0239



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TT + Etancoplast HP4 L 82 x 40

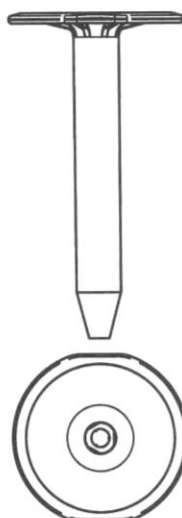
Annex 7
d of European
Technical
Assessment
ETA-08/0239



EGB TT 2C Ø4.8



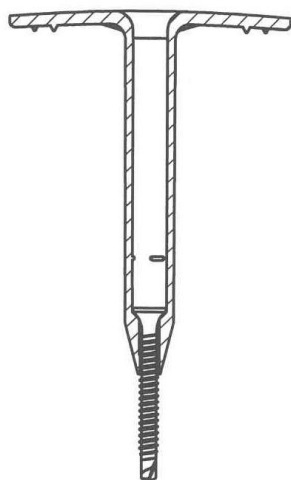
ETANCOPLAST Ø50



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast 50

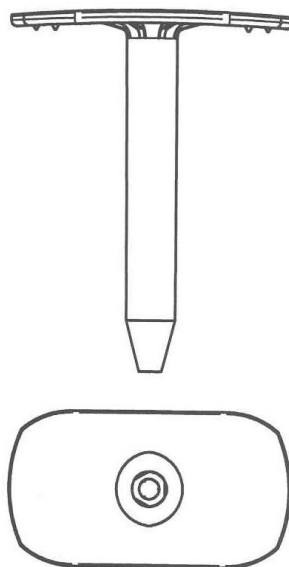
Annex 8
d of European
Technical
Assessment
ETA-08/0239



EGB TT 2C Ø4.8



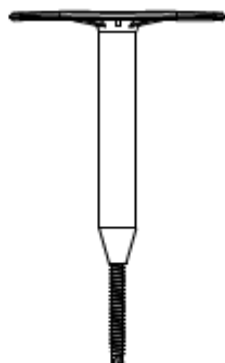
ETANCOPLAST T80x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast T80 x 40

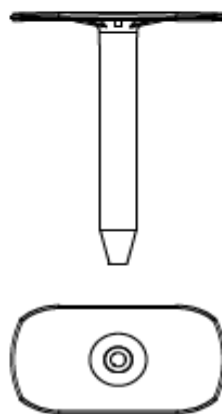
Annex 9
d of European
Technical
Assessment
ETA-08/0239



EGB 2C



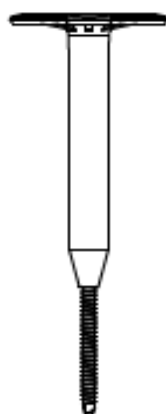
ETANCOPLAST-P T80x40



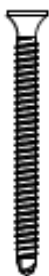
Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast-P T80 x 40

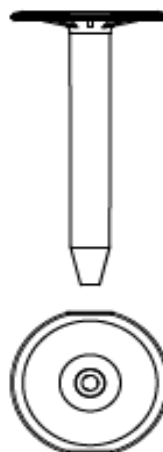
Annex 10
of European
Technical
Assessment
ETA-08/0239



EGB 2C



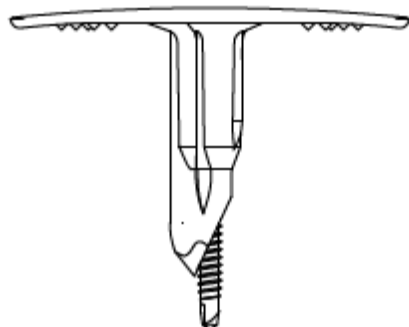
ETANCOPLAST P Ø50



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast-P Ø50

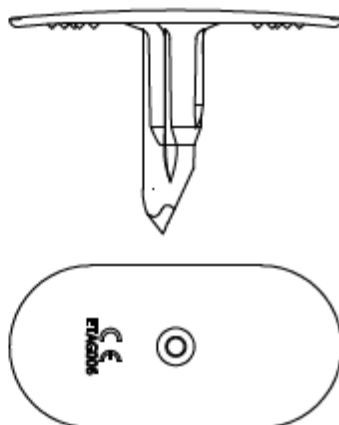
Annex 11
d of European
Technical
Assessment
ETA-08/0239



EGB TT 2C



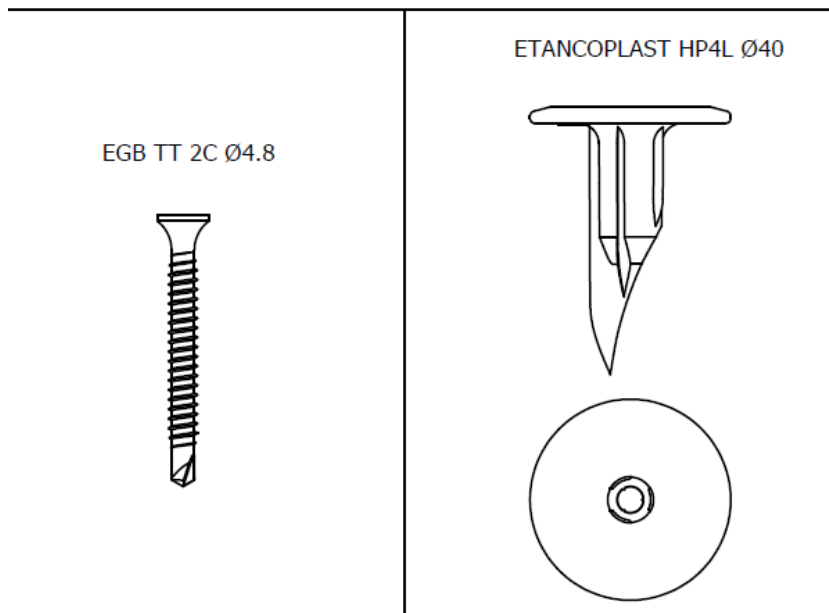
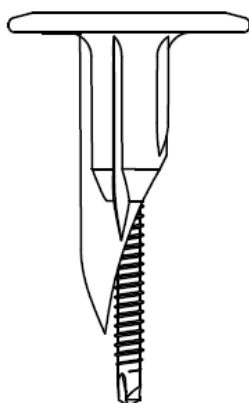
ETANCOPLAST HP4 L 82x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast HP4 L 82 x 40

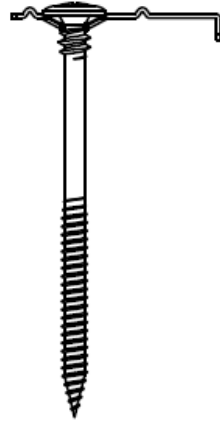
Annex 12
d of European
Technical
Assessment
ETA-08/0239



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EGB 2C + Etancoplast HP4 L Ø 40

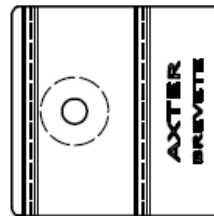
Annex 13
of European
Technical
Assessment
ETA-08/0239



EVDF 2C Ø4,8



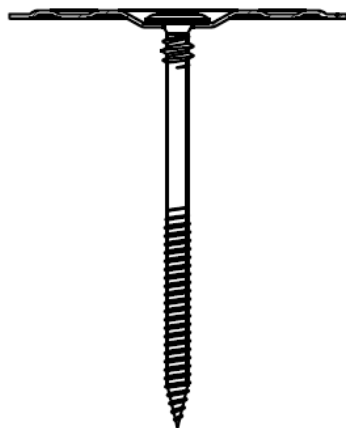
PLAQUETTE 40x40 AXTER



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 40 x 40 DF (Axter)

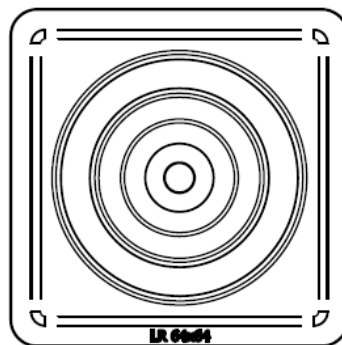
Annex 14
of European
Technical
Assessment
ETA-08/0239



EVDF 2C Ø4,8



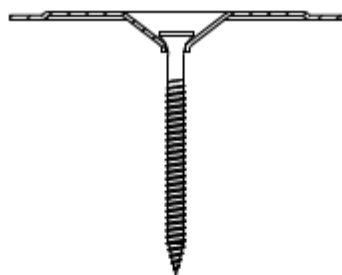
PLAQUETTE 64x64



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 64 x 64

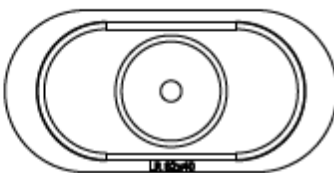
Annex 15
of European
Technical
Assessment
ETA-08/0239



VMS TT 2C



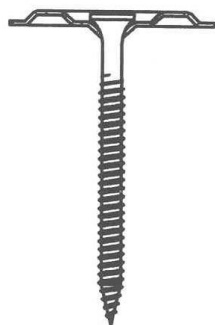
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + 82 x 40 R DF

Annex 16
of European
Technical
Assessment
ETA-08/0239



VMS 2C Ø4.8



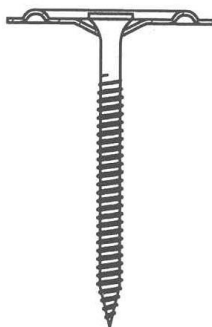
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + 40 x 40

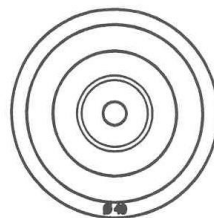
Annex 17
of European
Technical
Assessment
ETA-08/0239



VMS 2C Ø4.8



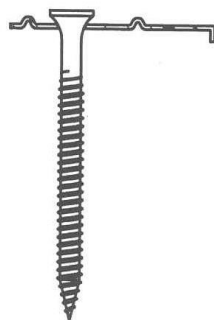
RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + Ø 40

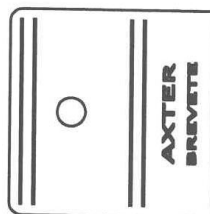
Annex 18
of European
Technical
Assessment
ETA-08/0239



VMS 2C Ø4.8



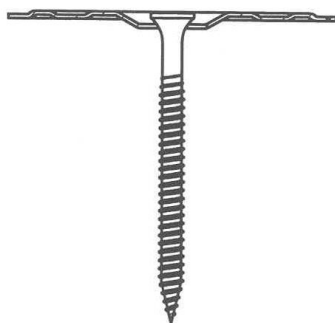
PLAQUETTE 40x40 AXTER



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + 40 x 40 (Axter)

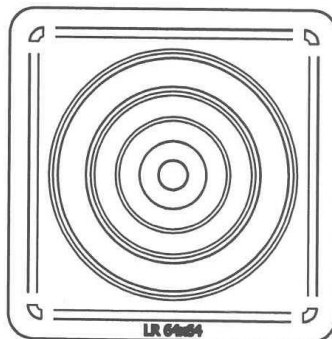
Annex 19
of European
Technical
Assessment
ETA-08/0239



VMS 2C Ø4.8



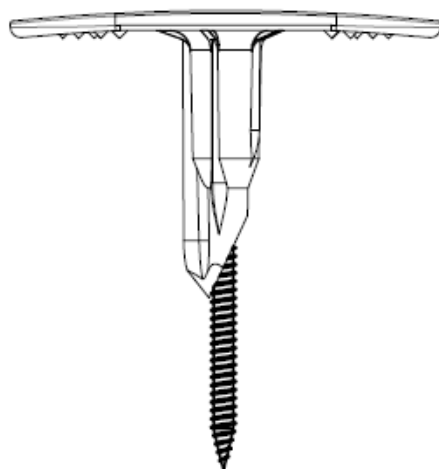
PLAQUETTE 64x64



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + 64 x 64

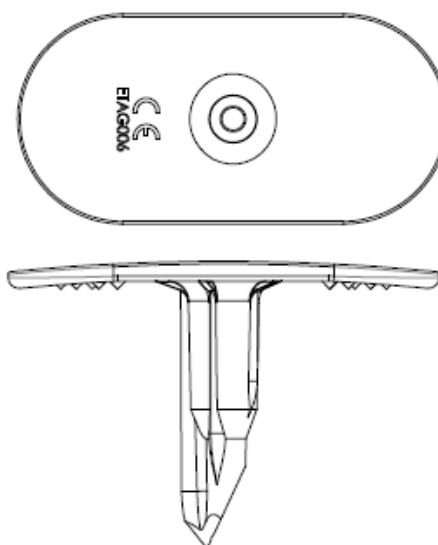
Annex 20
of European
Technical
Assessment
ETA-08/0239



VMS 2C Ø4,8



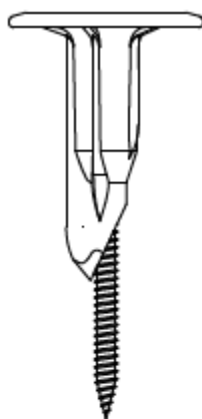
ETANCOPLAST HP4L 82x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + ETANCOPLAST HP4 L 82 x 40

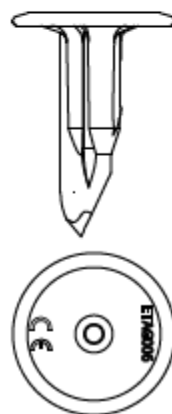
Annex 21
d of European
Technical
Assessment
ETA-08/0239



VMS TT 2C



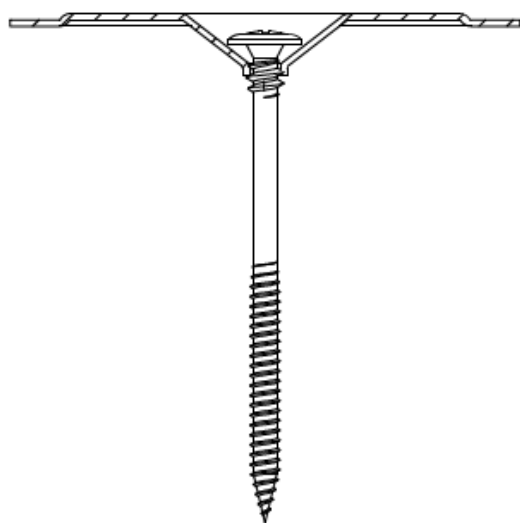
ETANCOPLAST HP4 L Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
VMS 2C + Etancoplast HP4 L Ø 40

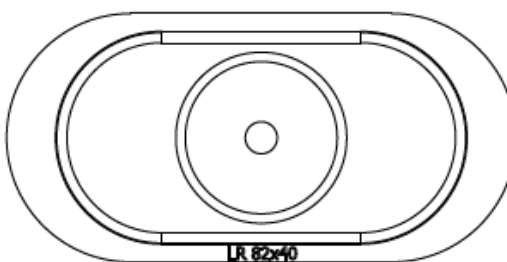
Annex 22
d of European
Technical
Assessment
ETA-08/0239



EVDF 2C



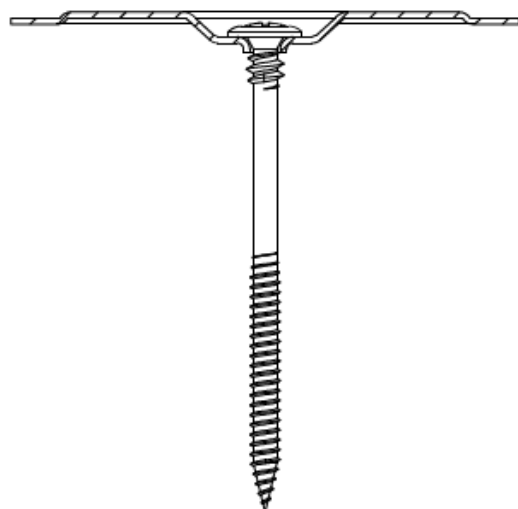
PLAQUETTE 82x40 R



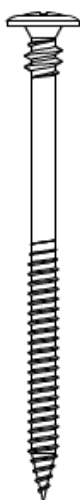
Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 82 x 40 R DF

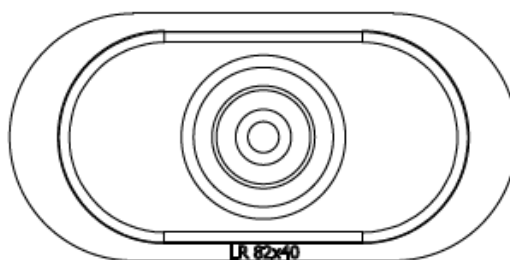
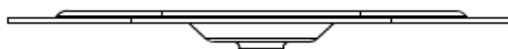
Annex 23
of European
Technical
Assessment
ETA-08/0239



EVDF 2C



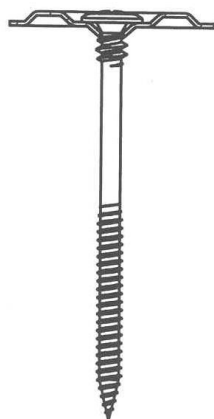
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 82 x 40 R DF code 294 712

Annex 24
of European
Technical
Assessment
ETA-08/0239



EVDF 2C Ø4.8



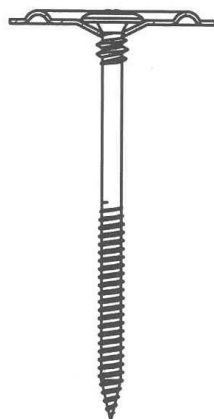
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 40 x 40

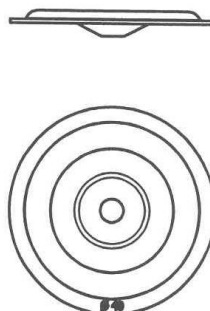
Annex 25
of European
Technical
Assessment
ETA-08/0239



EVDF 2C Ø4.8



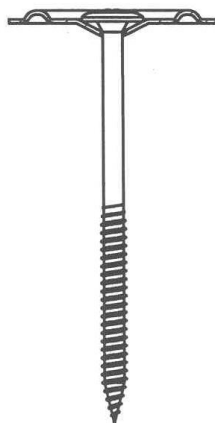
RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + Ø 40

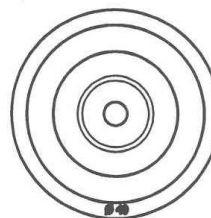
Annex 26
of European
Technical
Assessment
ETA-08/0239



EVF 2C Ø4.8



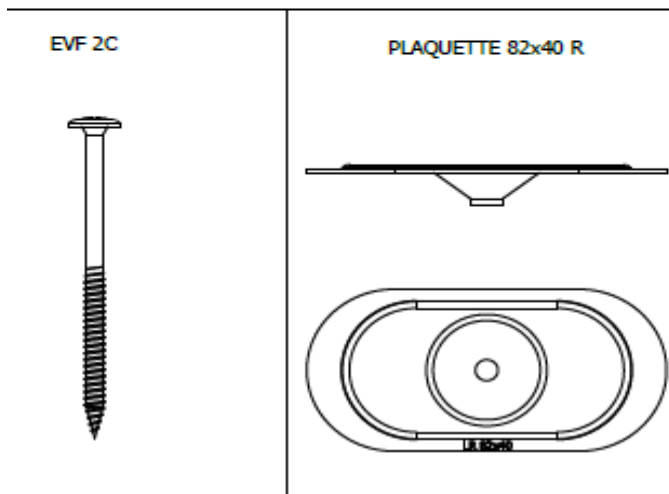
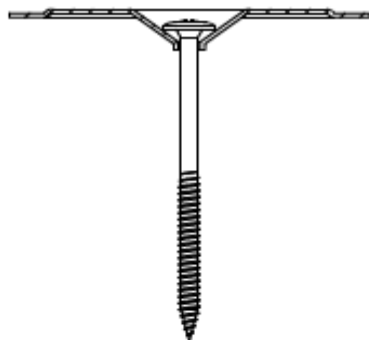
RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVF 2C + Ø 40

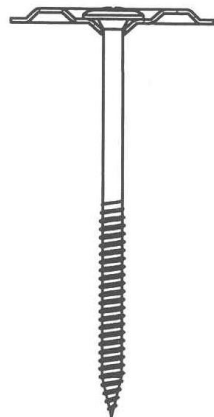
Annex 27
of European
Technical
Assessment
ETA-08/0239



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVF 2C + 82 x 40 R DF

Annex 28
of European
Technical
Assessment
ETA-08/0239



EVF 2C Ø4.8



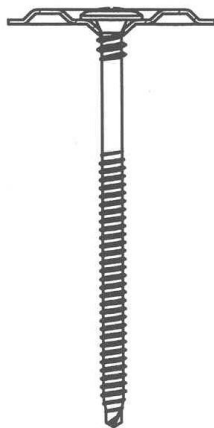
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVF 2C + 40 x 40

Annex 29
of European
Technical
Assessment
ETA-08/0239



EVB DF 2C Ø4.8



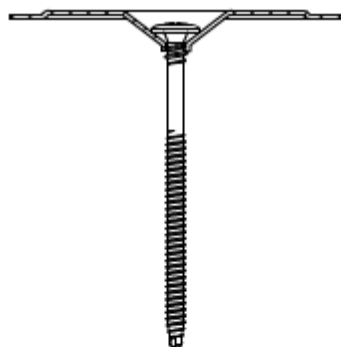
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVB DF 2C + 40 x 40

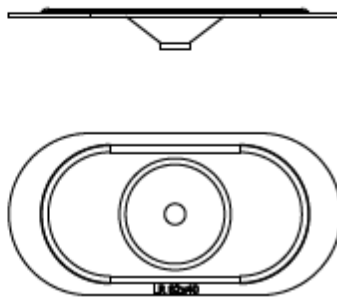
Annex 30
of European
Technical
Assessment
ETA-08/0239



EVB DF 2C



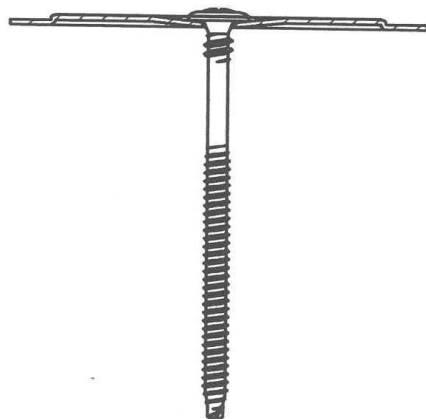
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVB DF 2C + 82 x 40 R DF

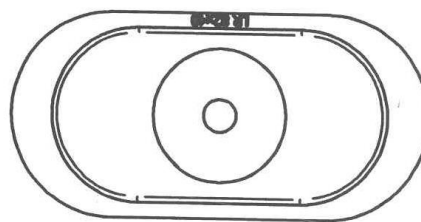
Annex 31
of European
Technical
Assessment
ETA-08/0239



EVB DF 2C Ø4.8



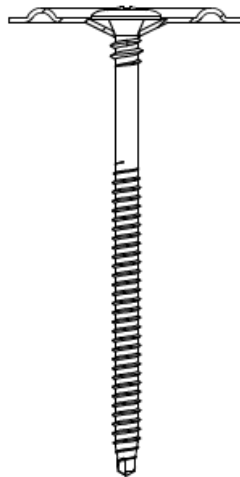
PLAQUETTE 82x40 R SC



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVB DF 2C + 82 x 40 R SC

Annex 32
of European
Technical
Assessment
ETA-08/0239



EVB DF 2C



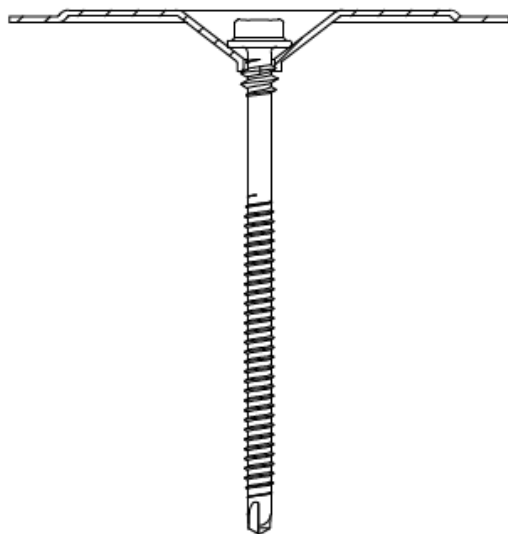
PLAQUETTE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVB DF 2C + Ø 40

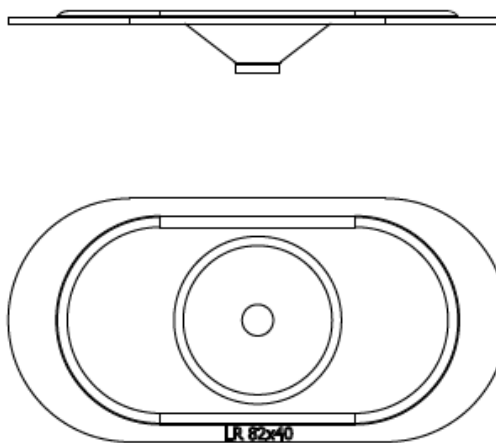
Annex 33
of European
Technical
Assessment
ETA-08/0239



EHB DF 2C



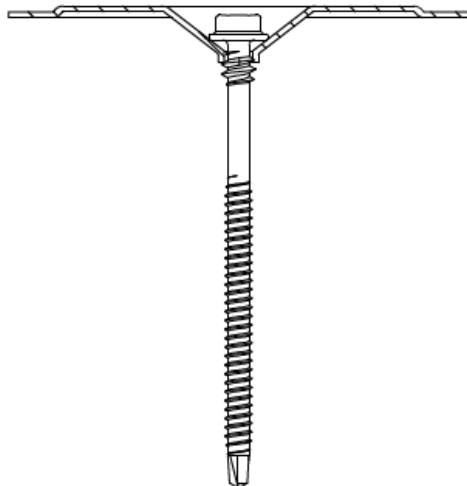
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EHB DF 2C + 82 x 40 R DF

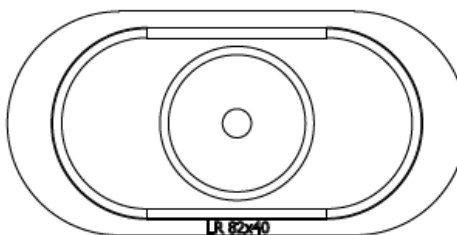
Annex 34
of European
Technical
Assessment
ETA-08/0239



ISODRILL TH DF



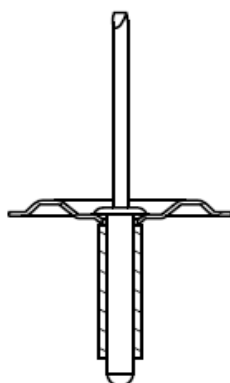
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
ISODRILL TH DF + 82 x 40 R DF

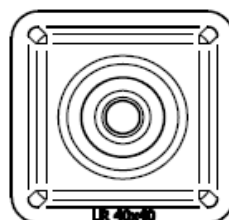
Annex 35
d of European
Technical
Assessment
ETA-08/0239



RIVET PER Ø5



PLAQUETTE 40x40



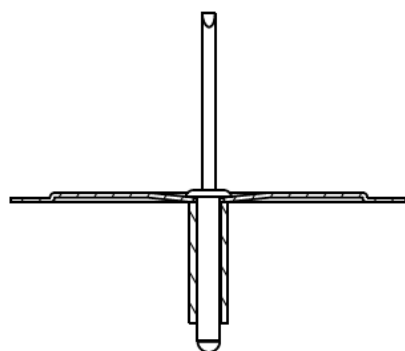
ENTRETOISE Ø7



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
PER Ø 5 + 40 x 40

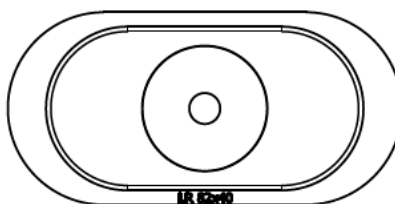
Annex 36
of European
Technical
Assessment
ETA-08/0239



RIVET PER Ø5



PLAQUETTE 82x40 R SC



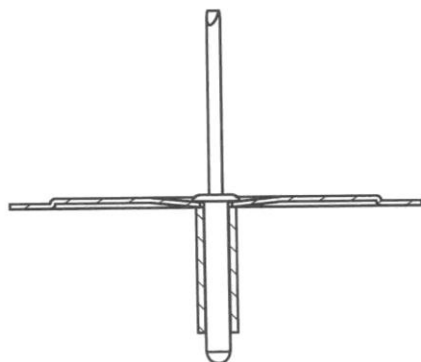
ENTRETOISE Ø7



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
PER Ø 5 + 82 x 40 R SC

Annex 37
of European
Technical
Assessment
ETA-08/0239



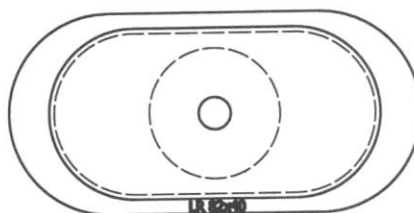
RIVET PER Ø4.8



PLAQUETTE 82x40 SC



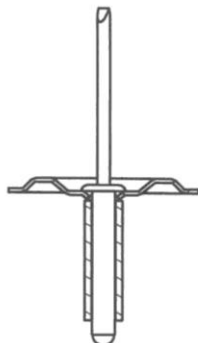
ENTRETOISE Ø8



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
PER Ø 4.8 + 82 x 40 R SC

Annex 38
of European
Technical
Assessment
ETA-08/239



RIVET PER Ø4.8



PLAQUETTE 40x40



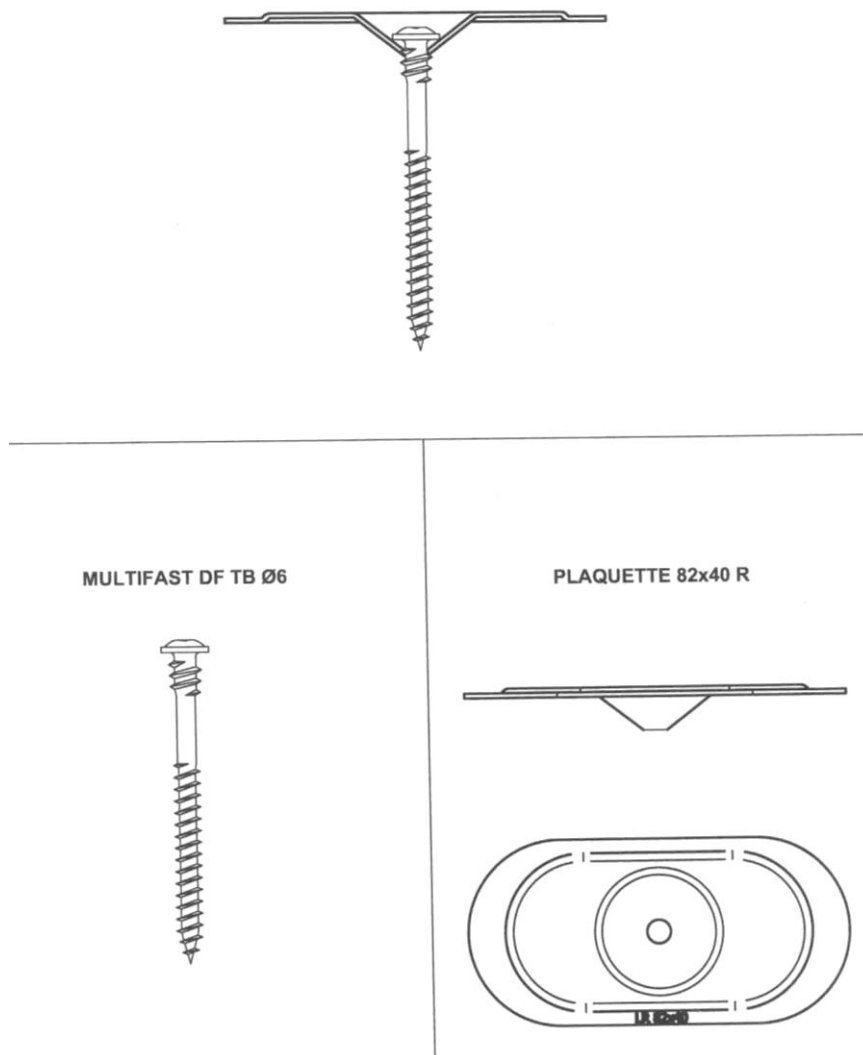
ENTRETOISE Ø8



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
PER Ø 4.8 + 40 x 40

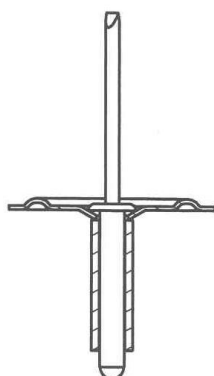
Annex 39
of European
Technical
Assessment
ETA-08/0239



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
MUTIFAST TB DF INOX A2 + 82 x 40 R DF

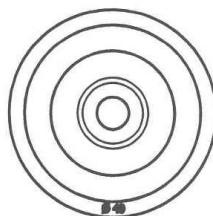
Annex 40
d of European
Technical
Assessment
ETA-08/0239



RIVET PER Ø4.8



RONDELLE Ø40



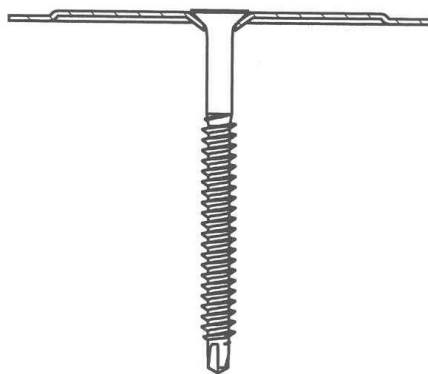
ENTRETOISE Ø8



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
RER Ø 4.8 + Ø 40

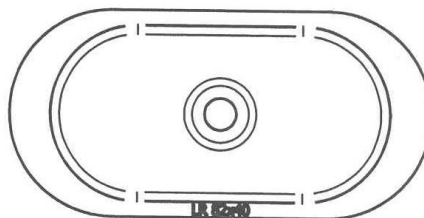
Annex 41
of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF 2C Ø6.5



PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF 2C + 82 x 40 R DF

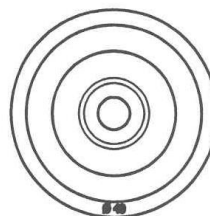
Annex 42
d of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF 2C Ø6.5



RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF 2C + Ø 40

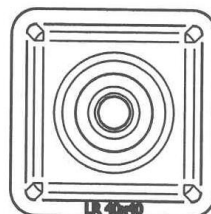
Annex 43
d of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF 2C Ø6.5



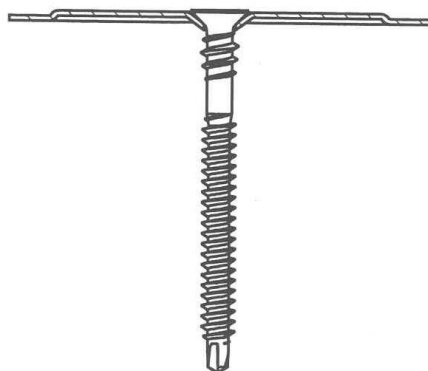
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF 2C + 40 x 40

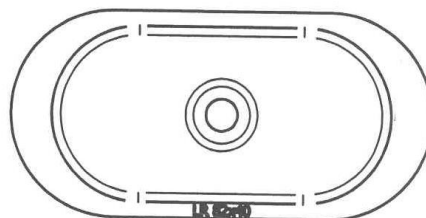
Annex 44
of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF DF 2C Ø6.5



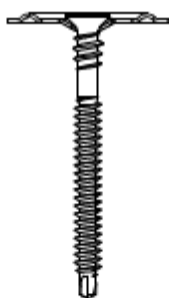
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF DF 2C + 82 x 40 R DF

Annex 45
of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF DF 2C



PLAQUETTE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF DF 2C + Ø 40

Annex 46
of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF DF 2C Ø6.5



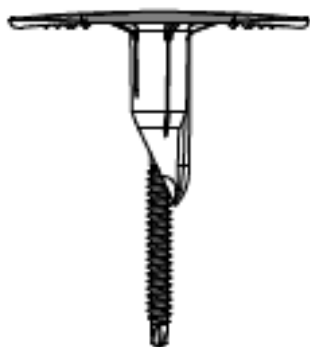
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF DF 2C + 40 x 40

Annex 47
of European
Technical
Assessment
ETA-08/0239



3036 TF



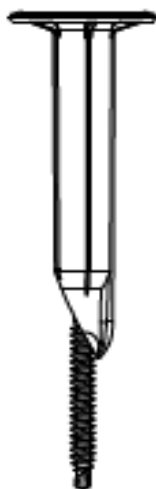
HP6L 82x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF 2C + Etancoplast HP6L 82 x 40

Annex 48
of European
Technical
Assessment
ETA-08/0239



3036 TF



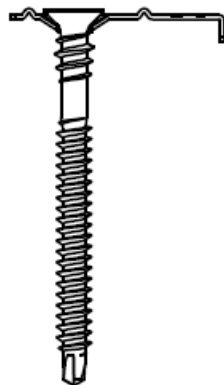
HP6L Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF 2C + Etancoplast HP6L Ø 40

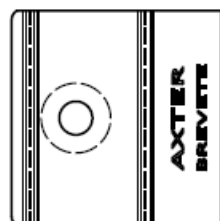
Annex 49
of European
Technical
Assessment
ETA-08/0239



FASTOVIS 3036 TF DF 2C Ø6.5



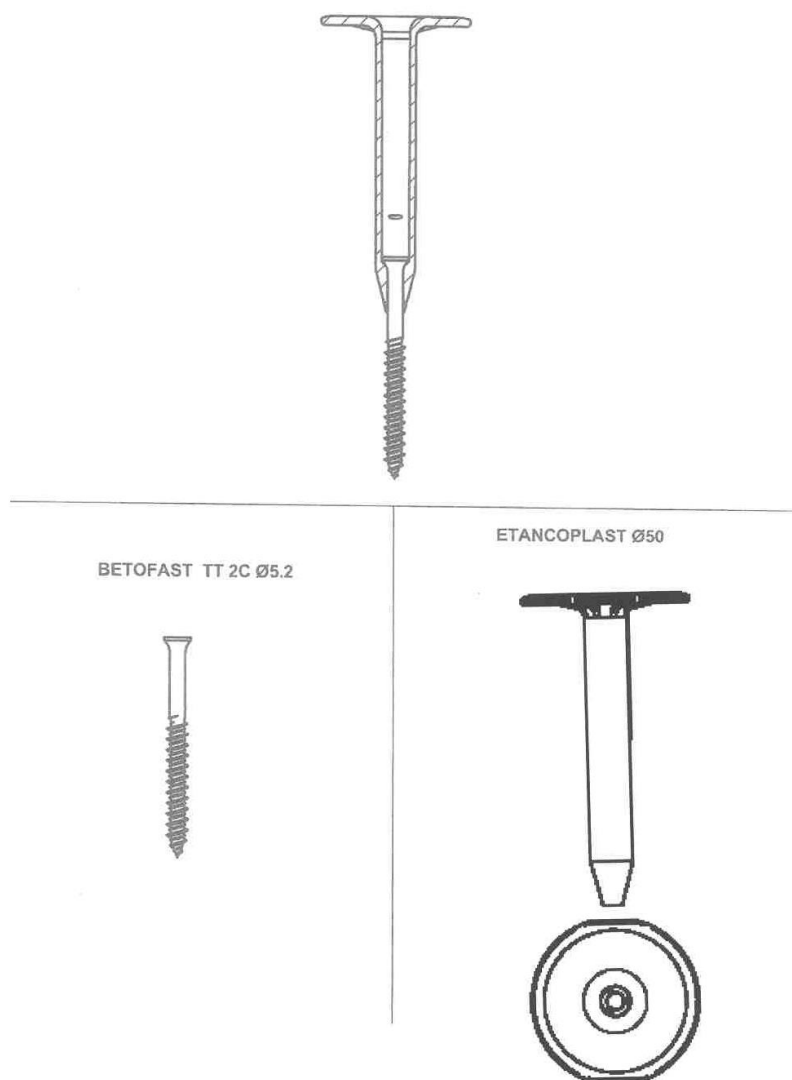
PLAQUETTE 40x40 AXTER



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
FASTOVIS 3036 TF DF 2C + 40 x 40 DF (Axter)

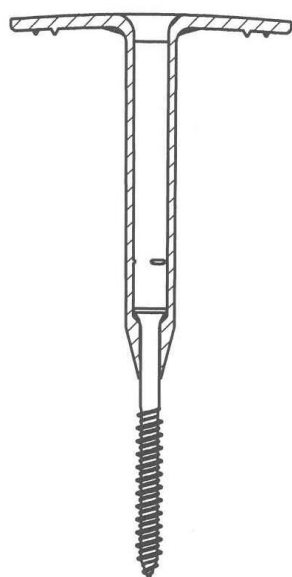
Annex 50
of European
Technical
Assessment
ETA-08/0239



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TT 2C + Etancoplast 50

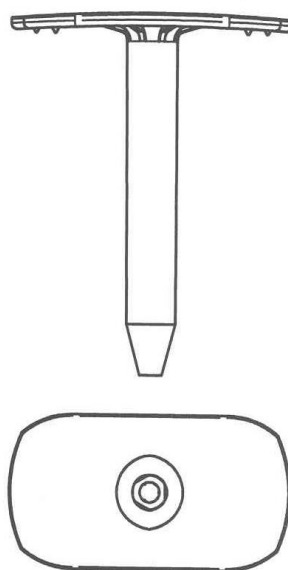
Annex 51
of European
Technical
Assessment
ETA-08/0239



BETOFAST TT 2C Ø5.2



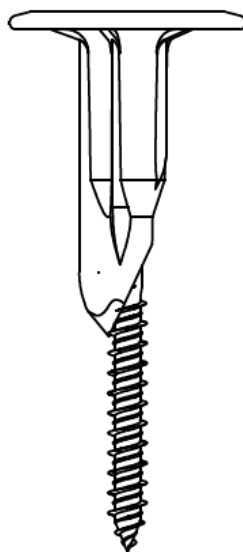
ETANCOPLAST T80x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TT 2C + Etancoplast T 80 x 40

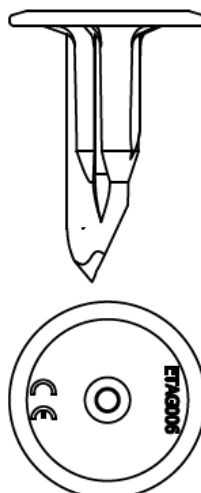
Annex 52
of European
Technical
Assessment
ETA-08/0239



BETOFAST TT 2C



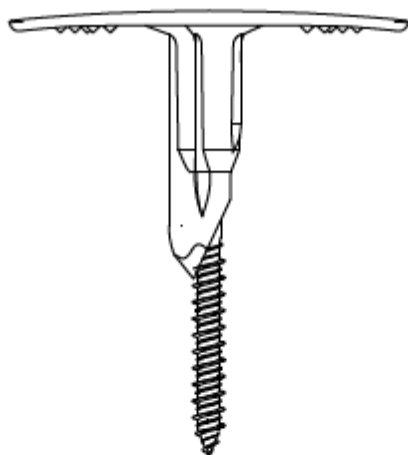
ETANCOPLAST HP4 L Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TT 2C + Etancoplast HP4L Ø 40

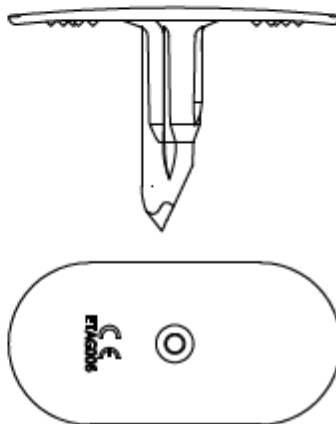
Annex 53
of European
Technical
Assessment
ETA-08/0239



BETOFAST TT 2C



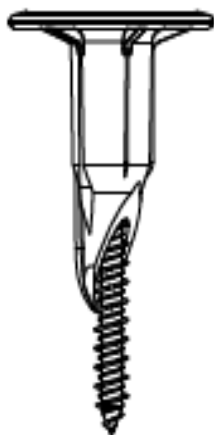
ETANCOPLAST HP4 L 82x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

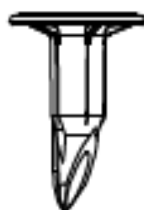
Sketch
BETOFAST TT 2C + Etancoplast HP4L 82 x 40

Annex 54
of European
Technical
Assessment
ETA-08/0239



bétofast TB Tx30

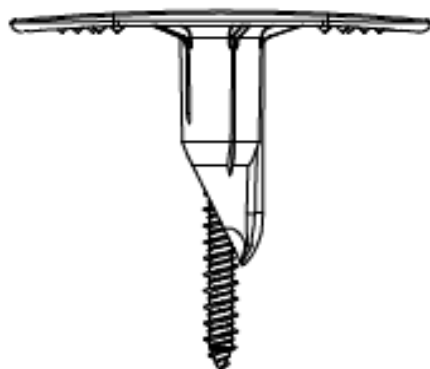
HP6L Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TB Tx/3C + Etancoplast HP6L Ø 40

Annex 55
of European
Technical
Assessment
ETA-08/0239



BETOFAST TB Tx



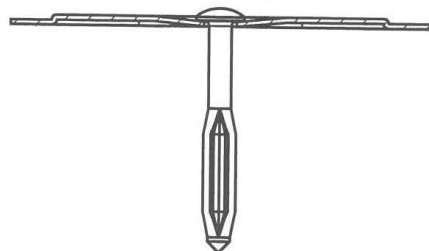
HP6L 82x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TB Tx/3C + Etancoplast HP6L 82 x 40

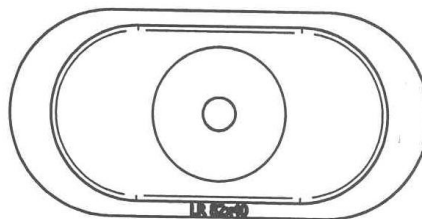
Annex 56
of European
Technical
Assessment
ETA-08/0239



NAILFIX TB Ø4.5



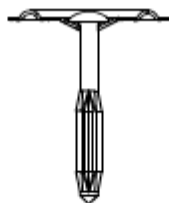
PLAQUETTE 82x40 R SC



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
NAILFIX GàC + 82 x 40 R SC

Annex 57
of European
Technical
Assessment
ETA-08/0239



NAILFIX TB GàC



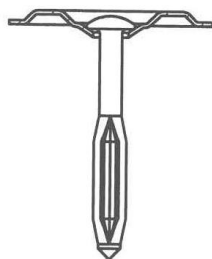
PLAQUETTE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
NAILFIX GàC + Ø 40

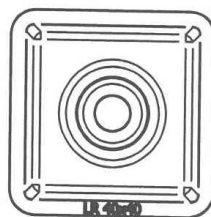
Annex 58
of European
Technical
Assessment
ETA-08/0239



NAILFIX TB Ø4.5



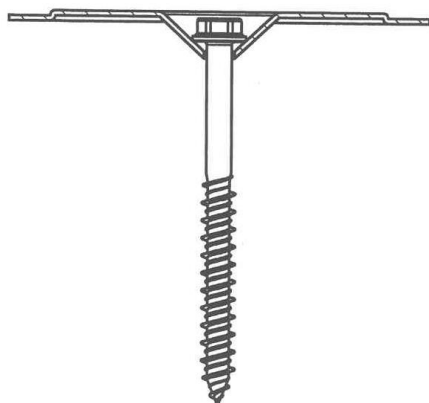
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
NAILFIX GâC + 40 x 40

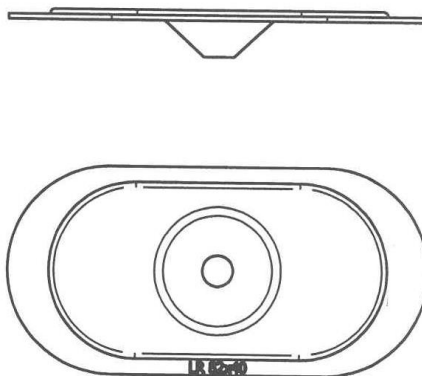
Annex 59
of European
Technical
Assessment
ETA-08/0239



BETOFAST TH 3C Ø6.6



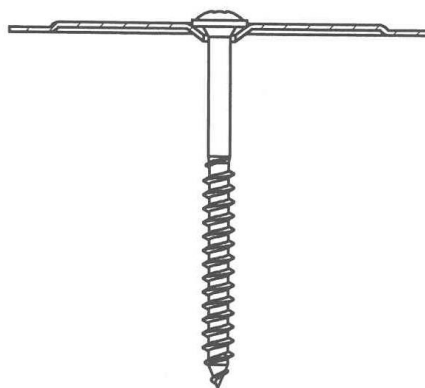
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
BETOFAST TH 3C + 82 x 40 R

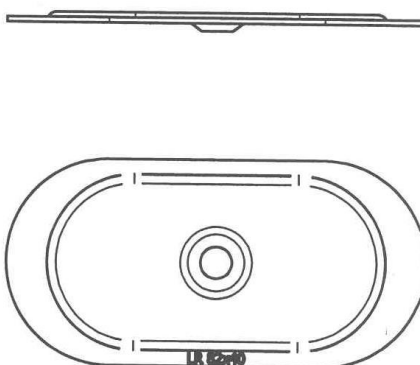
Annex 60
of European
Technical
Assessment
ETA-08/0239



MULTIFAST TB TX Ø6



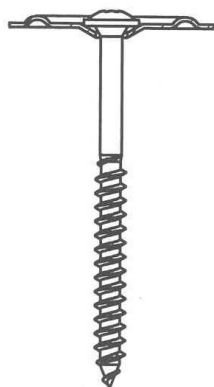
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
MULTIFAST TB INOX A2 + 82 x 40 R

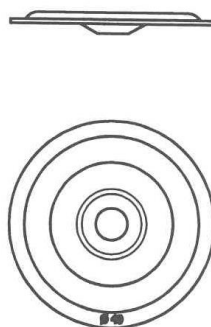
Annex 61
of European
Technical
Assessment
ETA-08/0239



MULTIFAST TB TX Ø6



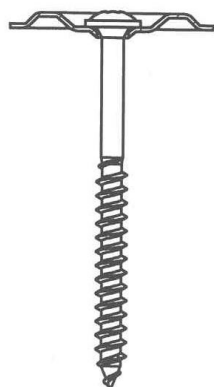
RONDELLE Ø40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
MULTIFAST TB INOX A2 + Ø 40

Annex 62
of European
Technical
Assessment
ETA-08/0239



MULTIFAST TB TX Ø6



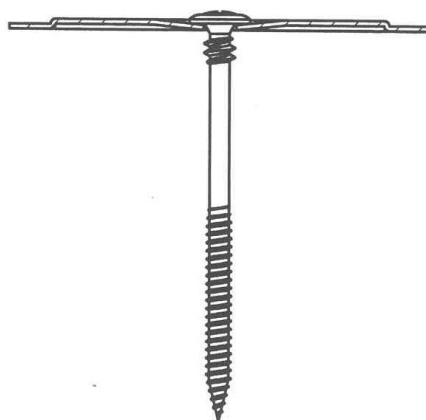
PLAQUETTE 40x40



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
MULTIFAST TB INOX A2 + 40 x 40

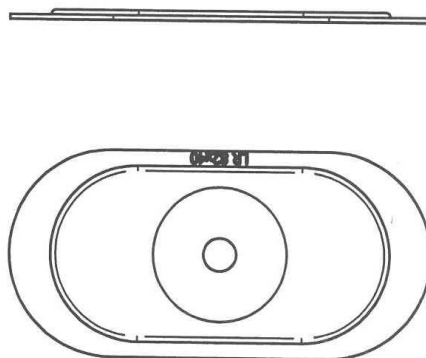
Annex 63
of European
Technical
Assessment
ETA-08/0239



EVDF 2C Ø4.8



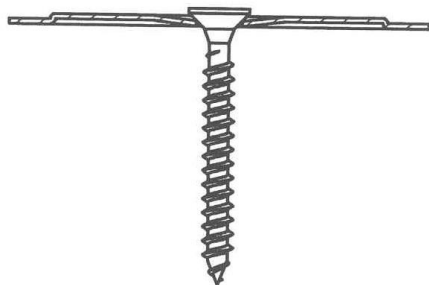
PLAQUETTE 82x40 R SC



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
EVDF 2C + 82 x 40 R SC

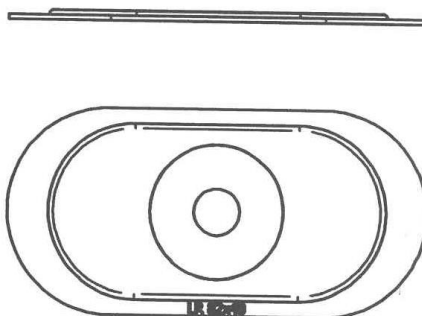
Annex 64
d of European
Technical
Assessment
ETA-08/0239



MULTIFAST TF Ø6



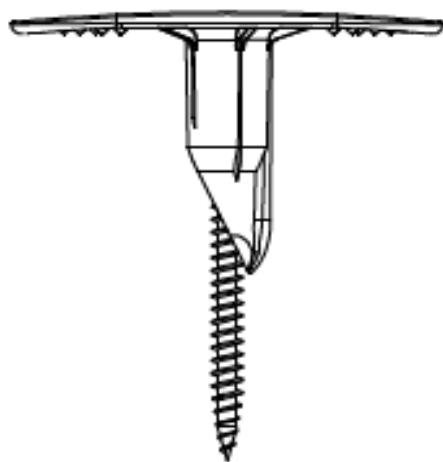
PLAQUETTE 82x40 R



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch
MULTIFAST TF + 82 x 40 R SC

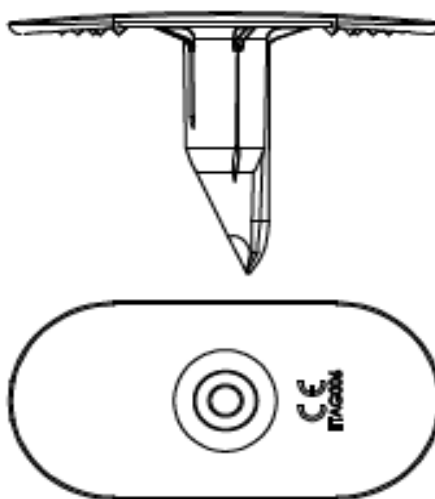
Annex 65
of European
Technical
Assessment
ETA-08/0239



MULTIFAST TB



HP6L 82x40

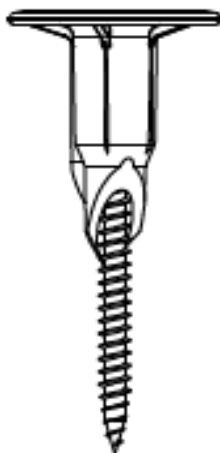


Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Annex 66
of European Technical
Assessment
ETA-08/0239

Sketch

MULTIFAST TB INOX A2 + Etancoplast HP6L 82 x 40



MULTIFAST TB



HP6L Ø40

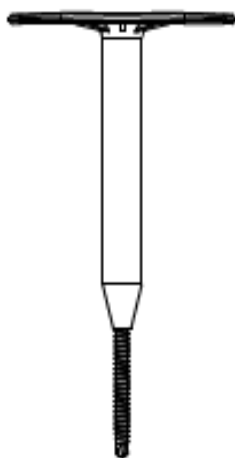


Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch

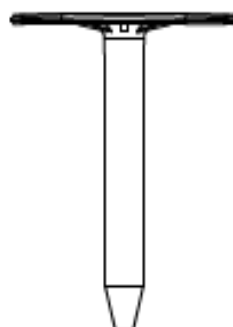
MULTIFAST TB INOX A2 + Etancoplast HP6L Ø 40

Annex 67
of European Technical
Assessment
ETA-08/0239



VMS 2C

ETANCOPLAST-P T82x40

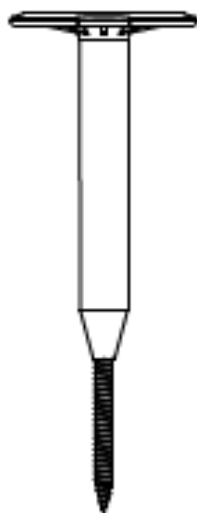


Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

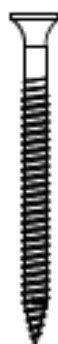
Annex 68
d of European
Technical Assessment
ETA-08/0239

Sketch

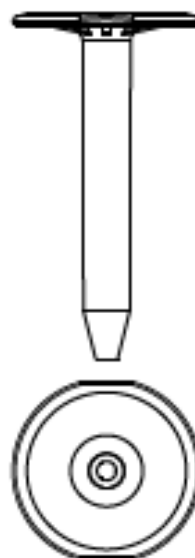
VMS 2C + ETANCOPLAST-P T80x40



VMS 2C



ETANCOPLAST-P Ø50



Fasteners for systems of mechanically fastened flexible roof waterproofing membranes

Sketch

VMS 2C + ETANCOPLAST-P Ø 50

Annex 69
of European Technical
Assessment
ETA-08/0239