84, avenue Jean-Jaurès
Champs-sur-Marne
FR-77447 Marne-la-Vallée
Cedex 2
Tél. : + 33 (0)1 64 68 82 82
Fax : + 33 (0)1 60 05 70 37
E-mail : etics@cstb.fr
Site internet : www.cstb.fr

Désigné conformément à l'article 29 du Règlement (UE) n° 305/2011

Member of EOTA
www.eota.eu

European Technical Assessment

ETA-11/0110-version 3 of 08/04/2025

GENERAL PART

Technical Assessment Body issuing the European Technical Assessment:	Centre Scientifique et Technique du Bâtiment (CSTB)
Trade name of the construction product:	**PARISO LR-M / PAREXTHERM MW / SIKATHERM MW**
Product family to which the construction product belongs:	Product Area Code: 04 External Thermal Insulation Composite System with rendering (ETICS)
Manufacturer:	**SIKA France S.A.S** 84 rue Edouard Vaillant 93350 LE BOURGET
Manufacturing plant(s):	**SIKA France S.A.S** 84 rue Edouard Vaillant 93350 LE BOURGET
This European Technical Assessment contains:	58 pages including 4 Annexes which form an integral part of this assessment Annex 5 contains confidential information and is/are not included in the European Technical Assessment when that assessment is publicly available
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of:	European Assessment Document (EAD) 040083-00-0404 External Thermal Insulation Composite Systems (ETICS) with renderings
This version replaces:	ETA-11/0110-version 2 valid from 29/06/2018

SPECIFIC PART

1. Technical description of the product

The External Thermal Insulation Composite System "**PARISO LR-M / PAREXTHERM MW / SIKATHERM MW**", subject to this European Technical Assessment (hereinafter ETA) and called ETICS in the following text, is a kit designed and installed in accordance with the Manufacturer's instructions, deposited with the CSTB. The ETICS comprises the components listed in the following table, which are factory-produced by the Manufacturer or a supplier. The ETICS is made up on site from these components.

The ETICS also includes ancillary materials which are defined in clause 1.3.13 of the EAD[1]. They shall be used in accordance with the Manufacturer's instructions.

The ETICS is described according to its method of fixing, as defined in clause 1.1 of the EAD.

Method of fixing	Component	Coverage (kg/m²)	Thickness (mm)
Mechanically fixed ETICS with anchors and supplementary adhesive	**Insulation product (mineral wool (MW))**		
	Rock wool panels		
	ECOROCK MONO, by Rockwool, see Annex 1 (1/7)		50 to 160
	ECOROCK DUO, by Rockwool, see Annex 1 (2/7)		50 to 300
	ECOROCK DUO PR, by Rockwool, see Annex 1 (3/7)		50 to 300
	FKD-MAX C2, by Knauf Insulation, see Annex 1 (4/7)		60 to 300
	Re Coat +, by Termolan, see Annex 1 (5/7)		60 to 240
	ISOVER ETICS 35, by Saint-Gobain Isover, see Annex 1 (6/7)		50 à 200
	Glass wool panels		
	ISOCOMPACT, by Saint-Gobain Isover, see Annex 1 (7/7)		60 to 280
	Supplementary adhesives		
	MAITÉ: white cement-based powder requiring addition of 17 to 19% wt. water	2.6 to 3.5 [powder]	—
	CALISO : grey cement-based powder requiring addition of 21 to 22% wt. water	2.6 to 3.5 [powder]	—
	UNITÉ: cement-based powder requiring addition of 21 to 24% wt. water	2.6 to 3.5 [powder]	—
	FACITÉ: cement-based powder requiring addition of about 22% wt. water	2.0 to 3.0 [powder]	—
	Anchors for insulation product		
	Plastic anchors, see Annex 2	—	—

[1] EAD 040083-00-0404 is available on the EOTA website: www.eota.eu.

Method of fixing	Component	Coverage (kg/m²)	Thickness (mm)
Mechanically fixed ETICS with anchors and supplementary adhesive	**Base coat**		
	MAITÉ: powder requiring addition of 17 to 19% wt. water, consisting of white cement, a vinylic micronised copolymer, mineral pigments, calcium carbonate and silica as particles and specific additives	About 6.0 [powder]	Mean: 4.0 [dry]
	Meshes		
	Glass fibre meshes (standard and reinforced), see Annex 3		
	Key coats		
	REVLANE RÉGULATEUR: ready-to-use pigmented liquid, acrylic binder, to apply mandatory before **GRANILANE** and **PAREX DÉCO TRAVERTIN** finishing coats and to apply optionally before **REVLANE TF 1.0/TG 1.6/RF 1.6, REVLANE SILOXANÉ TF 1.0/TG 1.6, and REVLANE CLEAN** finishing coats.	0.15 to 0.20	—
	SILICANE FOND: uncoloured liquid, silicate binder:		—
	ready-to-use or requiring optionally addition of 100% wt. **SILICANE LISSE**, mandatory use before silicate finishing coats **SILICANE TF 1.0 / SILICANE TG 1.6**	0.10 to 0.15 [ready-to-use or prepared]	
	ready-to-use to apply optionally before **CALCIFIN** and **CALCILISSE**	0.08 to 0.12 [ready-to-use]	
	Finishing coats		
	Ready-to-use pastes – acrylsiloxane binder:		Regulated by particles size
	- **REVLANE TF 1.0** (particles size 1.0 mm)	2.2 to 2.5	
	- **REVLANE TG 1.6** (particle size 1.6 mm)	2.7 to 3.0	
	- **REVLANE RF 1.6** (particles size 1.6 mm)	2.5 to 2.7	
	For applications between 1 and 15°C, these pastes can be mixed with 4 to 8% wt. of **PATACCEL** (powder made of hydraulic binder and mineral filler) to accelerate their drying		
	Ready-to-use pastes – acrylsiloxane binder:		
	- **REVLANE SILOXANÉ TF 1.0** (particles size 1.0 mm)	2.2 to 2.5	
	- **REVLANE SILOXANÉ TG 1.6** (particle size 1.6 mm)	2.5 to 2.7	
	For applications between 1 and 15°C, these pastes can be mixed with 4 to 8% wt. of **PATACCELL** (powder made of hydraulic binder and mineral filler) to accelerate their drying		
	Ready-to-use paste – acrylic binder with coloured marble aggregates: **GRANILANE** (particles size 1.8 mm)	4.5 to 5.0	

Method of fixing	Component	Coverage (kg/m²)	Thickness (mm)
Mechanically fixed ETICS with anchors and supplementary adhesive	Ready-to-use pastes – silicate binder: - **SILICANE TF 1.0** (particles size 1.0 mm) - **SILICANE TG 1.6** (particles size 1.6 mm)	1.5 to 2.0 2.5 to 2.7	Regulated by particles size
	Ready-to-use paste – acrylsiloxane binder: **PAREX DÉCO TRAVERTIN** (particles size 0.8 mm)	1.7 to 2.2	About 1.5
	For applications between 1 and 15°C, this paste can be mixed with 4% wt. of **PATACCELL** (powder made of hydraulic binder and mineral filler) to accelerate their drying.		
	Ready-to-use paste –siloxane binder: **REVLANE CLEAN** (particles size 1.0 mm)	1.8 to 2.2	Regulated by particle size
	Cement-based powder associated with marble aggregates: **MAITÉ** with **MARBRI GRANULATS**: –**MAITÉ:** same product as base coat –**MARBRI GRANULATS:** coloured marble aggregates (particles size 3 to 6 mm)	3.4 to 4.3 [powder] at least 8.0	About 6.0
	Cement-based powders requiring addition of 20 to 24% wt. water: –**EHI GM** (particle size 3.0 mm) – **EHI GF** (particle size 2.0 mm)	14.0 to 18.0 [powder]	8.0 to 10.0
	Hydrated calcic lime-based powder requiring addition of 24 to 26% wt. water: **CALCIFIN** (particles size 1.0 mm)	1.8 to 2.2 [powder]	Regulated by particle size
	Hydrated calcic lime-based powder requiring addition of 22 to 23% wt. water: **CALCILISSE** (particles size 0.8 mm)	3.0 to 3.4 [powder]	2.5 to 3.0
	UNITÉ: Cement-based powder requiring addition of about 22% wt. water: - rough / partly smoothed rough - scraped - structured	10.0 to 11.0 [powder]	8.0 to 10.0
	Hydrated calcic lime-based powder requiring addition of 20 to 24% wt. water: **CALCIGRAIN** (particles size 2.0 mm)	14.0 to 17.0 [powder]	8.0 to 10.0
	Cement-based powder associated with a decorative paint: **MAITÉ** with **SILICANE LISSE**: – **MAITÉ:** same product as base coat – **SILICANE LISSE:** silicate-based pigmented liquid, requiring addition of about 20% wt. SILICANE FOND	About 2.0 [powder] About 0.4 [prepared]	About 1.5

Method of fixing	Component	Coverage (kg/m²)	Thickness (mm)
Mechanically fixed ETICS with anchors and supplementary adhesive	Cement-based powder associated with a decorative paint: **MAITÉ** with **BADI DECO** : – **MAITÉ:** same product as base coat – **BADI DECO :** Hydrated lime-based liquid	About 2.0 [powder] About 0.4	About 1.5
Ancillary materials	Descriptions in accordance with § 1.3.13 of the EAD Remain under the ETA-Manufacturer responsibilities		

The ETICS is designed to give the walls to which it is applied satisfactory thermal insulation. The minimum thermal resistance of the ETICS shall be higher than 1.0 m^2.K/W.

The components are protected from moisture during transport and storage by means of appropriate packaging, unless other measures are foreseen by the Manufacturer for this purpose.

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

This ETICS is intended to be used as thermal insulation of buildings' external walls made of masonry (bricks, blocks, stones, *etc.*) or concrete (cast on site or as prefabricated panels).

The ETICS can be installed on new or existing (retrofit) vertical walls. It can also be installed on horizontal or inclined surfaces which are not exposed to precipitation.

The ETICS is made of non-load bearing construction elements. It does not contribute directly to the stability of the walls on which it is installed, but it can contribute to durability by providing enhanced protection from the effect of weathering.

The ETICS is not intended to ensure the airtightness of the walls.

The provisions made in this ETA are based on an assumed working life of at least 25 years, provided that the construction works are subject to appropriate design, execution, maintenance and repair. The indications given as to the working life cannot be interpreted as a guarantee given by the Manufacturer or the Technical Assessment Body, but should only be regarded as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works.

The ETICS is installed in accordance with Manufacturer´s installation instructions.

Design, execution, maintenance and repair of the construction works shall be done in accordance with national instructions.

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

Performances of the ETICS, related to the basic requirements for construction works (hereinafter BWR), were determined according to chapters 2 of the EAD.

These performances, given in the following paragraphs, are valid as long as the components are the ones described in § 1 and Annexes 1 to 4 of this ETA.

3.1 Safety in case of fire (BWR 2)

No	Essential characteristic	Assessment method (EAD clause)	Performance
1	Reaction to fire	2.2.1	-
	- Reaction to fire of ETICS	2.2.1.1	Euroclass A2-s1, d0; or B-s1,d0 See clause 3.1.1 for the details
	- Reaction to fire of thermal insulation material	2.2.1.2	Rock Wool: Class A1 Glass Wool: Class A2-s1, d0
	- Reaction to fire of PU foam adhesive	2.2.1.3	Not applicable
2	Façade fire performance	2.2.2	No performance assessed
3	Propensity to undergo continuous smouldering of ETICS	2.2.3	No performance assessed

Configuration	Declared organic content (1)	Declared flame retardant content (1)	Class according to EN 13501-1
• Supplementary adhesives: - **MAITÉ** - **CALISO** - **UNITÉ** - **FACITE** • Insulation products: - Rock wool panels, reaction to fire Class A1, thickness ≤ 300 mm, density ≤ 155 kg/m^3 - Glass wool panels, reaction to fire Class A2-s1,d0, thickness ≥ 20 mm, density ≤ 65 kg/m^3 • Base coat: **MAITÉ** • Meshes: - R 131 A 101 C+ - SSA-1363 F+ • Key coats: - **REVLANE RÉGULATEUR** - **SILICANE FOND + SILICANE LISSE** - **SILICANE FOND** • Finishing coats: - **CALCIFIN** - **CALCILISSE** - **PAREX DÉCO TRAVERTIN(2)** - **REVLANE SILOXANÉ TF 1.0/TG 1.6(2)** - **REVLANE TF 1.0/ TG 1.6(2)** - **REVLANE RF 1.6(2)** - **REVLANE CLEAN**	Base coat: 7.0% Finishing coats: 3.0 to 12.1%	Base coat: 0.0% Finishing coats: 0.0 to 18.2%	A2-s1, d0
• Supplementary adhesives: - **MAITÉ** - **CALISO** - **UNITÉ** - **FACITÉ** • Insulation products: - Rock wool panels, reaction to fire Class A1, thickness ≤ 300 mm, density ≤ 155 kg/m^3 - Glass wool panels, reaction to fire Class A2-s1,d0, thickness ≥ 20 mm, density ≤ 65 kg/m^3 • Base coat: **MAITÉ** • Meshes: - R 131 A 101 C+ - SSA-1363 F+ • Finishing coats: - **SILICANE TF 1.0/TG 1.6** - **MAITÉ avec MARBRI GRANULATS** - **UNITE** - **EHI GM/GF** - **MAITÉ avec SILICANE LISSE** - **MAITÉ avec BADI DECO** - **CALCIGRAIN**	Base coat: 7.0% Finishing coats: 2.6 to 6.4% Except for MAITÉ (7.0%) with - SILICANE LISSE (12.6%), Or with BADI DECO (2.6%)	Base coat: 0.0% Finishing coats: 0.0%	A2-s1, d0

Configuration	Declared organic content (1)	Declared flame retardant content (1)	Class according to EN 13501-1
• Supplementary adhesives: - **MAITÉ** - **CALISO** - **UNITÉ** - **FACITÉ** • Insulation products: - Rock wool panels, reaction to fire Class A1, thickness ≤ 300 mm, density ≤ 155 kg/m^3 - Glass wool panels, reaction to fire Class A2-s1,d0, thickness ≥ 20 mm, density ≤ 65 kg/m^3 • Base coat: **MAITÉ** • Meshes: - R 131 A 101 C+ - SSA-1363 F+ • Key coat: **REVLANE RÉGULATEUR** • Finishing coat: **GRANILANE**	Base coat: 7.0% Finishing coat: 8.0%	Base coat: 0.0% Finishing coat: 0.0%	B-s1, d0

(1) Percentage declared by the Manufacturer, relative to the dried weight of the component as delivered.

(2) With or without PATACCELL

3.2 Hygiene, health and the environment (BWR 3)

No	Essential characteristic	Assessment method (EAD clause)	Performance
4	Content, emission and/or release of dangerous substances – leachable substances	2.2.4	No performance assessed
5	Water absorption	2.2.5	-
	- of the base coat and the rendering system	2.2.5.1	See cl. 3.2.1
	- of the thermal insulation product	2.2.5.2	≤ 1 kg/m² (EN 1609- Method A)
6	Water-tightness of the ETICS: Hygrothermal behaviour	2.2.6	Hygrothermal cycles have been performed on a rig. The ETICS is assessed resistant to hygrothermal cycles, it means system “PARISO LR-M / PAREXTHERM MW / SIKATHERM MW” passed the test without defects.
7	Water-tightness: Freeze thaw performance	2.2.7	See cl. 3.2.2
8	Impact resistance	2.2.8	See cl. 3.2.3
9	Water vapour permeability	2.2.9	-
	- of the rendering system (equivalent air thickness s_d)	2.2.9.1	See cl. 3.2.4
	- of thermal insulation product (water-vapour resistance factor)	2.2.9.2	μ = 1

3.2.1 Water absorption – capillarity test

3.2.1.1 Water absorption of the base coat

- After 1 hour: mean value of the water absorption: 0.16 kg/m²
- After 24 hours: mean value of the water absorption: 0.23 kg/m²

3.2.1.2 Water absorption of the rendering system

Rendering system: Base coat + finishing coat indicated below	Mean value of the water absorption (kg/m²) after	
	1 hour	24 hours
With or without REVLANE RÉGULATEUR: - REVLANE TF 1.0 /TG 1.6 (1) - REVLANE RF 1.6 (1)	0.01	0.07
	Test result obtained with REVLANE TG 1.6	
With REVLANE RÉGULATEUR: GRANILANE	0.12	0.42
With or without REVLANE RÉGULATEUR: REVLANE SILOXANÉ TF 1.0/TG 1.6(1)	0.01	0.14
	Test result obtained with REVLANE SILOXANÉ TG 1.6 + 8% « PATACCEL »	
With SILICANE FOND + SILICANE LISSE: - SILICANE TF 1.0 - SILICANE TG 1.6	0.03	0.32
	Test result obtained with SILICANE TG 1.6	
With REVLANE RÉGULATEUR: PAREX DÉCO TRAVERTIN(1)	0.02	0.15
With or without REVLANE RÉGULATEUR: REVLANE CLEAN	0.02	0.09
MAITÉ with MARBRI GRANULATS	0.12	0.26
- EHI GM - EHI GF	0.06	0.28
With or without SILICANE FOND: CALCIFIN	0.03	0.09
With or without SILICANE FOND: CALCILISSE	0.06	0.21
UNITE	0.22	0.89
CALCIGRAIN	0.08	0.46
MAITÉ with SILICANE FOND with SILICANE LISSE	0.07	0.62
MAITÉ with BADI DECO	0.09	0.56

(1) With or without PATACCELL

3.2.2 Freeze-thaw behaviour

Water absorptions of rendering systems with the finishing coats SILICANE LISSE and BADI DECO are more than 0.5 kg/m² after 24 hours. The ETICS has not been assessed as freeze/thaw resistant.

Water absorptions of rendering systems with the finishing coat UNITE are more than 0.5 kg/m² after 24 hours. The ETICS has been assessed as freeze/thaw resistant according to simulation method.

Bond strength tests were carried out after freeze/thaw cycles:

Rendering system: Base coat + finishing coat indicated below	Bond strength (kPa)		Type of failure
	Minimal	Average	
UNITE	14	17	Cohesive in the insulation product

Water absorptions of both the base coat and the other rendering systems are less than 0.5 kg/m² after 24 hours. The ETICS is therefore assessed as freeze/thaw resistant for these configurations.

3.2.3 Impact resistance

Rendering system: Base coat + finishing coat indicated below		Presence of cracks	Maximum impact diameter (mm)	Use category
With or without REVLANE RÉGULATEUR: - REVLANE TF 1.0 /TG 1.6 (1) - REVLANE RF 1.6 (1)	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
With REVLANE RÉGULATEUR: GRANILANE	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
With or without REVLANE RÉGULATEUR: REVLANE SILOXANÉ TF 1.0/TG 1.6(1)	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
With SILICANE FOND + SILICANE LISSE: - SILICANE TF 1.0 - SILICANE TG 1.6	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
With REVLANE RÉGULATEUR: PAREX DÉCO TRAVERTIN(1)	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I

Rendering system: Base coat + finishing coat indicated below		Presence of cracks	Maximum impact diameter (mm)	Use category
With or without REVLANE RÉGULATEUR: REVLANE CLEAN	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
MAITÉ with MARBRI GRANULATS	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
- EHI GM - EHI GF	**Single standard mesh**	No – 3J No – 10J	15 – 3J 26 – 10J	Category I
	Double standard mesh	No – 3J No – 10J	15 – 3J 21 – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	16 – 3J 17 – 10J	Category I
With or without SILICANE FOND: CALCIFIN	**Single standard mesh**	No – 3J Yes – 10J	NPD – 3J 40 – 10J	Category II
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
With or without SILICANE FOND: CALCILISSE	**Single standard mesh**	No – 3J Yes – 10J	NPD – 3J 34 – 10J	Category II
	Double standard mesh	No – 3J No – 10J	NPD – 3J 14 – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
UNITE	**Single standard mesh**	No – 3J No – 10J	13 – 3J 14 – 10J	Category I
	Double standard mesh	No – 3J No – 10J	12 – 3J 15 – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	10 – 3J 15 – 10J	Category I
CALCIGRAIN	**Single standard mesh**	No – 3J No – 10J	12 – 3J 24 – 10J	Category I
	Double standard mesh	No – 3J No – 10J	14 – 3J 21– 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	13 – 3J 19 – 10J	Category I

(1) With or without PATACCELL

Rendering system: Base coat + finishing coat indicated below		Presence of cracks	Maximum impact diameter (mm)	Use category
MAITÉ with SILICANE FOND with SILICANE LISSE	**Single standard mesh**	No – 3J No – 10J	NPD – 3J 22 – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
MAITÉ with BADI DECO	**Single standard mesh**	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Double standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I
	Reinforced mesh + standard mesh	No – 3J No – 10J	NPD – 3J NPD – 10J	Category I

3.2.4 Water vapour permeability – resistance to water vapour diffusion

Rendering system: Base coat + finishing coat indicated below	Thickness of rendering system (mm)	Equivalent air thickness s_d (m)
With or without REVLANE RÉGULATEUR: - REVLANE TF 1.0(1) - REVLANE TG 1.6 (1) - REVLANE RF 1.6(1)	5.3	≤ 1.0 (Test result obtained with REVLANE TG 1.6: 0.8)
With REVLANE RÉGULATEUR: GRANILANE	7.9	≤ 1.0 (Test result obtained: 0.6)
With or without REVLANE RÉGULATEUR: - REVLANE SILOXANÉ TF 1.0(1) - REVLANE SILOXANÉ TG 1.6(1)	5.3	≤ 1.0 (Test result obtained with REVLANE SILOXANÉ TF 1.0: 0.8)
With SILICANE FOND + SILICANE LISSE: - SILICANE TF 1.0 - SILICANE TG 1.6	5.7	≤ 1.0 (Test result obtained with SILICANE TG 1.6: 0.2)
With REVLANE+ RÉGULATEUR: PAREX DÉCO TRAVERTIN(1)	4.2	≤ 1.0 (Test result obtained: 0.5)
With or without REVLANE RÉGULATEUR: REVLANE CLEAN	5.8	≤ 1.0 (Test result obtained: 0.7)
- EHI GM - EHI GF	18.7	≤ 1.0 (Test result obtained with EHI GM: 0.2)

Rendering system: Base coat + finishing coat indicated below	Thickness of rendering system (mm)	Equivalent air thickness s_d (m)
MAITÉ with MARBRI GRANULATS	7.9	≤ 1.0 (Test result obtained with MAITÉ Sprayed (not included in this ETA): 0.2)
CALCIFIN	3.8	≤ 1.0 (Test result obtained: 0.1)
With SILICANE FOND: CALCIFIN	4.2	≤ 1.0 (Test result obtained: 0.1)
CALCILISSE	6.4	≤ 1.0 (Test result obtained: 0.1)
With SILICANE FOND: CALCILISSE	6.9	≤ 1.0 (Test result obtained: 0.2)
UNITE	17.0	≤ 1.0 (Test result obtained: 0.2)
CALCIGRAIN	19.1	≤ 1.0 (Test result obtained: 0.2)
MAITÉ with SILICANE FOND with SILICANE LISSE	5.5	≤ 1.0 (Test result obtained: 0.3)
MAITÉ with BADI DECO	5.6	≤ 1.0 (Test result obtained: 0.2)

(1) With or without PATACCELL

3.3 Safety and accessibility in use (BWR 4)

No	Essential characteristic	Assessment method (EAD clause)	Performance
10	Bond strength	2.2.11	-
	- bond strength between the base coat and the thermal insulation product (mortar or paste)	2.2.11.1	See cl. 3.3.1.1
	- bond strength between the adhesive and the substrate	2.2.11.2	Not applicable
	- bond strength between the adhesive and the thermal insulation product	2.2.11.3	Not applicable

No	Essential characteristic	Assessment method (EAD clause)	Performance
	- bond strength of foam adhesives	2.2.11.4	Not applicable
11	Fixing strength	2.2.12	Test not required because the ETICS fulfils the following criteria: E.d < 50,000 N/mm
12	Wind load resistance of ETICS	2.2.13	-
	- pull-through tests of fixing	2.2.13.1	See cl. 3.3.2.1
	- static foam block test	2.2.13.2	Not applicable
	- dynamic wind uplift test	2.2.13.3	Not applicable
13	Tensile test perpendicular to the faces of the thermal insulation product	2.2.14	-
	- in dry conditions	2.2.14.1	See cl 3.3.3.1
	- in wet conditions	2.2.14.2	No performance assessed
14	Shear strength and shear modulus of elasticity test of ETICS	2.2.15	Not relevant because the system is mechanically fixed with anchors
15	Pull-through resistance of fixing from profiles	2.2.16	Not relevant because the system is mechanically fixed with anchors
16	Render strip tensile test	2.2.17	No performance assessed
17	Shear strength and shear modulus of foam adhesive	2.2.18	Not relevant
18	Post expansion behaviour of foam adhesives	2.2.19	Not relevant
19	Bond strength after ageing	2.2.20	-
	- bond strength after ageing of finishing coat tested on the rig	2.2.20.1	See cl. 3.3.4
	- bond strength after ageing of finishing coat not tested on the rig	2.2.20.2	See cl. 3.3.4
20	Mechanical and physical characteristics of the mesh	2.2.21	-
	- Tensile strength of the glass fibre mesh	2.2.21.1 2.2.21.2	See cl. 3.3.5

No	Essential characteristic	Assessment method (EAD clause)	Performance
	- Protection of metal mesh	2.2.21.3	Not relevant

3.3.1 Bond strength: Bond strength between the base coat and the thermal insulation product

Base coat(s) and thermal insulation product indicated below:	Failure resistance (kPa)		
	Initial state	After conditioning	Type of failure
ECOROCK MONO	Minimal: 10	Minimal: 11	Cohesive in the insulation product
	Average: 12	Average: 13	
ECOROCK DUO	Minimal: 6	Minimal: 4	
	Average: 9	Average: 5	
ECOROCK DUO PR	Minimal: 9	Minimal: 6	
	Average: 10	Average: 8	
FKD-MAX C2	Minimal: 23	Minimal: 15	
	Average: 26	Average: 19	
Re Coat +	Minimal: 14	Minimal: 5	
	Average: 16	Average: 5	
ISOVER ETICS 35	Minimal: 6	Minimal: 7	
	Average: 8	Average: 9	
ISOCOMPACT	Minimal: 16	Minimal: 12	
	Average: 21	Average: 14	

3.3.2 Wind load resistance of the ETICS

3.3.2.1 Pull-through tests of fixings

Anchors	**Plate diameter (mm)**	≥ 60	
	Plate stiffness (kN/mm)	≥ 0.4	
	Load resistance (kN)	≥ 1.7	
Insulation product	**Type**	**ECOROCK MONO** (Rockwool)	
	Tensile strength perpendicular to the face (kPa)	≥ 10	
		Mono-density product	
	Thickness (mm)	≥ 50	≥ 120
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.444	Minimal: 1.023
		Average: 0.475	Average: 1.044
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.362	Minimal: 0.500
		Average: 0.404	Average: 0.679

Anchors	**Trade name**	termoz SV II ecotwist
	Helix dimensions	Diameter: 66 Height: 27
Insulation product	**Type**	**ECOROCK MONO** (Rockwool)
	Tensile strength perpendicular to the face (kPa)	≥ 10
		Mono-density product
	Thickness (mm)	100
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.687
		Average: 0.752

Anchor termoz SV II ecotwist can only be used as mounted countersunk.

Anchors	**Plate diameter (mm)**	≥ 60		
	Plate stiffness (kN/mm)	≥ 0.4		
	Load resistance (kN)	≥ 1.7		
Insulation product	**Type**	**ECOROCK DUO** (Rockwool)		
	Tensile strength perpendicular to the face (kPa)	≥ 7.5		
		Dual density product		
	Thickness (mm)	≥ 50	≥ 80	≥ 120
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.339	Minimal: 0.348	Minimal: 0.454
		Average: 0.365	Average: 0.410	Average: 0.503
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.198	-	Minimal: 0.368
		Average: 0.229	-	Average: 0.406

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchors	**Plate diameter (mm)**	≥ 90	
	Plate stiffness (kN/mm)	≥ 0.4	
	Load resistance (kN)	≥ 1.7	
Insulation product	**Type**	**ECOROCK DUO** (Rockwool)	
	Tensile strength perpendicular to the face (kPa)	≥ 7.5	
		Dual density product	
	Thickness (mm)	≥ 80	≥ 120
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	-	Minimal: 0.511
		-	Average: 0.611
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.362	-
		Average: 0.392	-

Anchors	**Trade name**	Ejotherm STR U / STR U 2G + Ejotherm VT 2G
	Dimensions	Diameter: Ejotherm STR U / STR U 2G: 60 mm Ejotherm VT 2G: 110 mm
Insulation product	**Type**	**ECOROCK DUO** (Rockwool)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Dual density product
	Thickness (mm)	≥ 120
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions):** R_{panel} **(kN/fixing)**	Minimal: 0.699
		Average: 0.838

Anchors Ejotherm STR U or Ejotherm STR U 2G, associated with Ejotherm VT 2G can only be used as mounted countersunk.

Anchors	**Trade name**	termoz SV II ecotwist
	Helix dimensions	Diameter: 66 Height: 27
Insulation product	**Type**	**ECOROCK DUO** (Rockwool)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Dual-density product
	Thickness (mm)	100
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions):** R_{panel} **(kN/fixing)**	Minimal: 0.357
		Average: 0.413

Anchor termoz SV II ecotwist can only be used as mounted countersunk.

Anchors	**Plate diameter (mm)**	≥ 60
	Plate stiffness (kN/mm)	≥ 0.6
	Load resistance (kN)	≥ 2.08
Insulation product	**Type**	**ECOROCK DUO PR** (Rockwool)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Dual density product
	Thickness (mm)	≥ 130
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.533
		Average: 0.566
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.275
		Average: 0.316

Anchors	**Plate diameter (mm)**	≥ 60	
	Plate stiffness (kN/mm)	≥ 0.4	
	Load resistance (kN)	≥ 1.44	
Insulation product	**Type**	**FKD MAX C2** (Knauf Insulation)	
	Tensile strength perpendicular to the face (kPa)	≥ 7.5	
		Mono-density product	
	Thickness (mm)	≥ 80	≥ 140
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.600	Minimal: 0.726
		Average: 0.653	Average: 0.833
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.462	Minimal: 0.519
		Average: 0.495	Average: 0.570
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.372	Minimal: 0.526
		Average: 0.400	Average: 0.615
	Anchors placed at the panel joints (wet conditions*): R_{joint} (kN/fixing)	Minimal: 0.297	Minimal: 0.369
		Average: 0.319	Average: 0.398

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchors	**Trade name**	Ejotherm STR U / STR U 2G + Ejotherm VT 90	
	Dimensions	Diameter: Ejotherm STR U / STR U 2G: 60 mm Ejotherm VT 90: 90 mm	
Insulation product	**Type**	**FKD MAX C2** (Knauf Insulation)	
	Tensile strength perpendicular to the face (kPa)	≥ 7.5	
		Mono density product	
	Thickness (mm)	≥ 80	≥ 140
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.766	Minimal: 0.949
		Average: 0.826	Average: 1.010
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.647	Minimal: 0.702
		Average: 0.692	Average: 0.727

Anchors	**Trade name**	termoz SV II ecotwist
	Helix dimensions	Diameter: 66 Height: 27
Insulation product	**Type**	**FKD MAX C2** (Knauf Insulation)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Mono-density product
	Thickness (mm)	100
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.403
		Average: 0.509

Anchor termoz SV II ecotwist can only be used as mounted countersunk.

Anchors	**Plate diameter (mm)**	60		
	Plate stiffness (kN/mm)	0.6		
	Load resistance (kN)	1.7		
Insulation product	**Type**	**Re Coat +** (Termolan)		
	Tensile strength perpendicular to the face (kPa)	≥ 7.5		
		Mono-density product		
	Thickness (mm)	≥ 60	≥ 100	≥ 120
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions):** R_{panel} **(kN/fixing)**	Minimal: 0.527	Minimal: 0.727	Minimal: 0.827
		Average: 0.593	Average: 0.819	Average: 0.909
	Anchors placed at the panel joints (dry conditions): R_{joint} **(kN/fixing)**	-	-	Minimal: 0.606
		-	-	Average: 0.651
	Anchors not placed at the panel joints (wet conditions*): R_{panel} **(kN/fixing)**	-	Minimal: 0.465	-
		-	Average: 0.485	-

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchors	**Plate diameter (mm)**	60		
	Plate stiffness (kN/mm)	0.6		
	Load resistance (kN)	2.08		
Insulation product	**Type**	**ISOVER ETICS 35** (Saint Gobain ISOVER)		
	Tensile strength perpendicular to the face (kPa)	≥ 7.5		
		Mono-density product		
	Thickness (mm)	≥ 60	≥ 120	≥ 200
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.309	Minimal: 0.343	Minimal: 0.426
		Average: 0.317	Average: 0.433	Average: 0.453
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.215	Minimal: 0.230	Minimal: 0.190
		Average: 0.245	Average: 0.278	Average: 0.227
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.201	Minimal: 0.271	Minimal: 0.318
		Average: 0.217	Average: 0.291	Average: 0.451
	Anchors placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.158	Minimal: 0.190	Minimal: 0.143
		Average: 0.189	Average: 0.222	Average: 0.180

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchors	**Trade name**	termoz SV II ecotwist
	Helix dimensions	Diameter: 66 Height: 27
Insulation product	**Type**	**ISOVER ETICS 35** (Saint Gobain ISOVER)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Mono-density product
	Thickness (mm)	100
Maximum load ***(Pull-through test)***	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.190
		Average: 0.245
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.147
		Average: 0.197

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchor termoz SV II ecotwist can only be used as mounted countersunk.

Anchors	**Plate diameter (mm)**	60	
	Plate stiffness (kN/mm)	0.6	
	Load resistance (kN)	2.08	
Insulation product	**Type**	**ISOCOMPACT** (Saint-Gobain ISOVER)	
	Tensile strength perpendicular to the face (kPa)	≥ 7.5	
		Mono-density product	
	Thickness (mm)	≥ 60	≥ 120
Maximum load *(Pull-through test)*	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.556	Minimal: 0.621
		Average: 0.587	Average: 0.665
	Anchors placed at the panel joints (dry conditions): R_{joint} (kN/fixing)	Minimal: 0.364	Minimal: 0.381
		Average: 0.394	Average: 0.403
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.441	-
		Average: 0.481	-
	Anchors placed at the panel joints (wet conditions*): R_{joint} (kN/fixing)	-	Minimal: 0.399
		-	Average: 0.432

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchors	**Trade name**	termoz SV II ecotwist
	Helix dimensions	Diameter: 66 Height: 27
Insulation product	**Type**	**ISOCOMPACT** (Saint Gobain ISOVER)
	Tensile strength perpendicular to the face (kPa)	≥ 7.5
		Mono-density product
	Thickness (mm)	100
Maximum load *(Pull-through test)*	**Anchors not placed at the panel joints (dry conditions): R_{panel} (kN/fixing)**	Minimal: 0.351
		Average: 0.425
	Anchors not placed at the panel joints (wet conditions*): R_{panel} (kN/fixing)	Minimal: 0.231
		Average: 0.252

* 28 days at (70 ± 2)°C / (95 ± 5)% RH + drying period at (23 ± 2)°C / (50 ± 5)% HR until constant weight.

Anchor termoz SV II ecotwist can only be used as mounted countersunk.

The design wind load resistance of the ETICS fixed with anchors is determined as follows:

$$R_{\mathrm{d}} = \frac{R_{\mathrm{panel}} \cdot n_{\mathrm{panel}} + R_{\mathrm{joint}} \cdot n_{\mathrm{joint}}}{\gamma}$$

n_{panel} number of anchors not placed at the panel joints, per m²

n_{joint} number of anchors placed at the panel joints, per m²

γ national safety factor

3.3.3 Tensile test perpendicular to the faces of the thermal insulation product

3.3.3.1 Tensile strength perpendicular to the faces in dry conditions

See Declaration of Performances of insulation product.

3.3.3.2 Tensile strength perpendicular to the faces in wet conditions

No performance assessed.

3.3.4 Bond strength after ageing

Rendering system: Base coat + finishing coat indicated below	Bond strength (kPa)	Type of failure
With or without REVLANE RÉGULATEUR: - REVLANE TF 1.0 /TG 1.6 (1) - REVLANE RF 1.6 (1)	Minimal: 120	Cohesive in the insulation product (EPS)
	Average: 150 (Test result obtained with REVLANE TG 1.6)	
With REVLANE RÉGULATEUR: GRANILANE	Minimal: 50	Cohesive in the insulation product (MW)
	Average: 50	
With or without REVLANE RÉGULATEUR: REVLANE SILOXANÉ TF 1.0/TG 1.6(1)	Minimal: 140	
	Average: 170 (Test result obtained with REVLANE TF 1.0)	
With or without SILICANE FOND + SILICANE LISSE: - SILICANE TF 1.0 - SILICANE TG 1.6	Minimal: 98	Cohesive in the insulation product (EPS)
	Average: 109 (Test result obtained with SILICANE TG 1.6)	
With REVLANE RÉGULATEUR: PAREX DÉCO TRAVERTIN(1)	Minimal: 140	
	Average: 150	
With or without REVLANE RÉGULATEUR: REVLANE CLEAN	Minimal: 103	
	Average: 117	
MAITÉ with MARBRI GRANULATS	Minimal: 20	Cohesive in the insulation product (MW)
	Average: 23	
- EHI GM - EHI GF	Minimal: 180 (Test result obtained with EHI GM)	Cohesive in the insulation product (EPS)
	Average: 110	
With or without SILICANE FOND: CALCIFIN	Minimal: 180	
	Average: 150	
With or without SILICANE FOND: CALCILISSE	Minimal: 140	
	Average: 180	
UNITE	Minimal: 91	
	Average: 102	
CALCIGRAIN	Minimal: 124	
	Average: 137	
MAITÉ with SILICANE FOND with SILICANE LISSE	Minimal: 94	
	Average: 114	
MAITÉ with BADI DECO	Minimal: 107	
	Average: 114	

(1) With or without PATACCELL

3.3.5 Mechanical and physical characteristics of the mesh: Tensile strength of the glass fibre mesh

Producer's trade name	Tensile strength in the as-delivered state (N/mm)		Elongation at break in the as-delivered state (%)		Resistance after ageing			
					Residual resistance (N/mm)		Relative residual resistance (%)	
	Warp	Weft	Warp	Weft	Warp	Weft	Warp	Weft
IAVPC (R 131 A 101 C+)	40.3	48.3	4.0	4.6	31.0	25.9	76.9	53.6
IAVPC (SSA-1363 F+)	42.3	47.6	4.0	4.0	44.0	45.9	100.0	96.5

3.4 Protection against noise (BWR 5)

No	Essential characteristic	Assessment method (EAD clause)	Performance
21	Airborne sound insulation of ETICS	2.2.22.1	No performance assessed
	Dynamic stiffness of the thermal insulation product	2.2.22.2	No performance assessed
	Air flow resistance of the thermal insulation product	2.2.22.3	No performance assessed

3.5 Energy economy and heat retention (BWR 6)

No	Essential characteristic	Assessment method (EAD clause)	Performance
22	Thermal resistance and thermal transmittance of ETICS	2.2.23	Defined in clause 2.2.23 of EAD See cl. 3.5.1
	Thermal resistance and thermal transmittance of the thermal insulation product	2.2.23.1	See cl. 3.5.2

3.5.1 Thermal resistance and thermal transmittance of ETICS

The calculated value of thermal resistance of ETICS with minimal thickness and highest value of thermal conductivity of the insulation material is:

$R_{ETICS} = R_{insulation} + R_{render}$ [(m².K)/W]	1.40 + 0.02 = **1.42**

3.5.2 Thermal resistance and thermal transmittance of the thermal insulation product

See Declaration of performances of the insulation product.

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

According to Decision 97/556/EC (Decision of the Commission of 14 July 1997, L 229 of 20.8.1997, p. 15), as amended by Decision 2001/596/EC (Decision of the Commission of 8 January 2001, L 209 of 2.8.2001, p. 33)[2], the systems of AVCP given in the following table apply:

Product	Intended use	Levels or classes (Reaction to fire)	System
External Thermal Insulation Composite Systems with rendering	in external walls subject to fire regulation	A1(1), A2(1), B(1) or C(1)	1
		- A1(2), A2(2), B(2), C(2) - D, E, F - (A1 to E)(3)	2+
	in external walls not subject to fire regulation	any	2+

(1) Products/materials for which as clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material).

(2) Products/materials not covered by footnote 1.

(3) Products/materials that do not require to be tested for reaction to fire (e.g. Products/materials of Classes A1 according to Commission Decision 96/603/EC).

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

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at the CSTB.

The control plan is given in Annex 5. As the control plan contains confidential information, Annex 5 is not included in the published parts of this ETA.

Issued in Marne-la-Vallée on 08/04/2025 by

Aurélie BAREILLE
Head of “Certification and Assessment” Division
“Building Envelope” Direction

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

Factory-prefabricated, uncoated boards made of mineral wool **ECOROCK MONO** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m^2) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1 % or -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 10 [≥ 10 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		No performance determined
Compressive strength / EN 826		CS(10)30

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (1/7)** of ETA-11/0110-version 3
Insulation product for mechanically-fixed ETICS with anchors	

Factory-prefabricated, uncoated boards made of mineral wool **ECOROCK DUO** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m²) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1 % ou -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		No performance determined
Compressive strength / EN 826		CS(10)15

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (2/7)** of ETA-11/0110-version 3
Insulation product for mechanically-fixed ETICS with anchors	

Factory-prefabricated, coated boards made of mineral wool **ECOROCK DUO PR** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m²) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1 % ou -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS 1,0 [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		No performance determined
Compressive strength / EN 826		CS(10)15

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (3/7)** of ETA-11/0110-version 3
Insulation product for mechanically-fixed ETICS with anchors	

Factory-prefabricated, coated boards made of mineral wool **FKD-MAX C2** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m^2) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1% or -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS1,0 [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		No performance determined
Compressive strength / EN 826		CS(10)20 [≥ 20 kPa]

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (4/7)** of ETA-11/0110-version 3
Insulation products for mechanically-fixed ETICS with anchors	

Factory-prefabricated, uncoated boards made of mineral wool **RE Coat+** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m^2) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1 % ou -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS1.0 [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		NPD
Water vapour diffusion resistance factor (μ) / EN 12086		NPD
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		No performance determined
Compressive strength / EN 826		CS(10)30 [≥ 30 kPa]

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (5/7)** of ETA-11/0110-version 3
Insulation product for mechanically-fixed ETICS with anchors	

Factory-prefabricated, uncoated boards made of mineral wool **ISOVER ETICS 35** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m^2) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A1
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1 % ou -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS1,0 [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		AFr 29 [29 kPa.s/m²]
Compressive strength / EN 826		CS(10/Y)20 [≥ 20 kPa]

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (6/7)**
Insulation product for mechanically-fixed ETICS with anchors	of ETA-11/0110-version 3

Factory-prefabricated, uncoated boards made of mineral wool **ISOCOMPACT** (MW) according to EN 13162+A1 and having characteristics described in the following table. Mass per unit area (kg/m²) depends on both thickness of the board and density of mineral wool.

Reaction to fire / EN 13501-1		Class A2-s1, d0
Thermal resistance / EN 13162		Defined in the CE marking
Dimensional tolerances	**Thickness / EN 823**	T5 [-1% or -1 mm / +3 mm]
Dimensional stability	**Under specified temperature and humidity / EN 1604: 48 h at 70°C and 90% RH**	DS(70,90) [≤ 1%]
Water absorption (partial immersion) / EN 1609 – method A		WS [≤ 1.0 kg/m²]
Longterm water absorption (partial immersion) / EN 1609		WL(P) [≤ 3.0 kg/m²]
Water vapour diffusion resistance factor (μ) / EN 12086		MU1
Tensile strength perpendicular to the faces in dry conditions / EN 1607		TR 7.5 [≥ 7.5 kPa]
Dynamic stiffness / EN 29052-1		No performance determined
Air flow resistance / EN 29053		AFr 5 [5 kPa.s/m²]
Compressive strength / EN 826		CS(10)20 [≥ 20 kPa]

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 1 (7/7)** of ETA-11/0110-version 3
Insulation product for mechanically-fixed ETICS with anchors	

Anchors with ETA according to European Technical Approval Guideline No 014 (hereinafter ETAG 014) or to European Assessment Document (EAD) 330196-ED-0604 (hereinafter EAD "anchors"). The anchors are composed of a plastic expansion sleeve with a plate having diameter of 60 mm and a plastic or metallic nail or screw. Use categories and characteristic resistances in the substrate are given in each anchor's ETA. Validity of the anchor's ETA shall be checked before using the anchor.

Trade name	ETA reference	Mounting[(1)]	Plate stiffness (kN/mm)	Load resistance (kN)
Ejotherm H1	11/0192	a	0.6	1.4
Ejotherm H2 eco	15/0740	a	0.97	1.25
Ejot H3	14/0130	a	0.6	1.25
Ejotherm STR U, STR U 2G	04/0023	a	0.6	2.08
Fischer Termoz CN plus 8	09/0394	a,b	0.6	1.7
Parecotwist (termoz SV II ecotwist)	12/0208	b	1.0	-
Koelner KI-10 / KI 10PA	07/0291	a	0,5	2,1
Koelner KI-10M	07/0291	a	0,4	2,6
Koelner KI-10N/ KI-10NS	07/0221	a	0,5	1,23
Koelner TFIX-8S	11/0144	a	0.6	2.04
Koelner TFIX-8ST	11/0144	b	0.6	2.04
Koelner TFIX-8M	07/0336	a	1.0	1.75
RAWLPLUG R-TFIX-8M	17/0592	a	1.0	1.5
RAWLPLUG R-TFIX-8S	17/0161	a	0.6	2.0

(1) a: surface mounting; b: countersunk mounting.

These characteristics, the use categories and the characteristic resistances in the substrate shall be taken from the corresponding anchor's ETA.

ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 2** of ETA-11/0110-version 3
Anchors for insulation product	

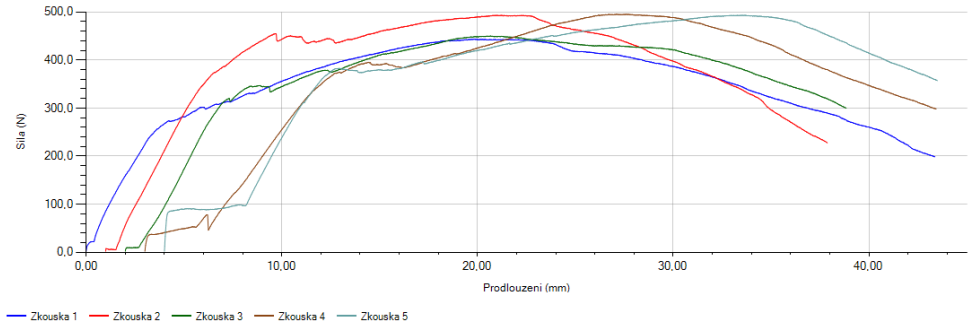
Glass fibre meshes:

- standard mesh: with mesh size between 3 and 6 mm;
- reinforced mesh: implemented in addition to the standard mesh, to improve the impact resistance.

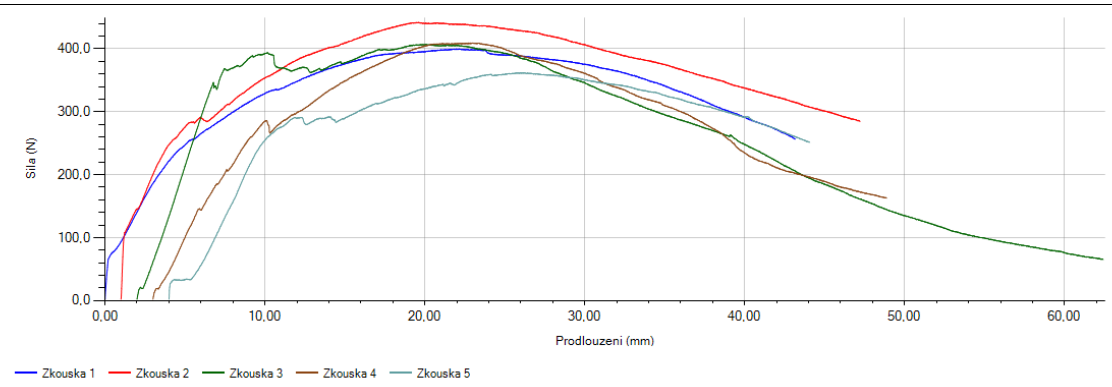
Trade name	Mass per unit area (g/m^2)	Residual strength after ageing (N/mm)		Relative residual strength after ageing (%)(1)	
		Warp	Weft	Warp	Weft
Standard meshes					
IAVPC (SSA-1363 F+)	167	≥ 20	≥ 20	≥ 50	≥ 50
IAVPC (R 131 A 101 C+)	167	≥ 20	≥ 20	≥ 50	≥ 50
Reinforced mesh					
IAVR (R 585 A 101)	696	≥ 20	≥ 20	≥ 40	≥ 40

(1) Percentage of the strength in the as-delivered state.

ECOROCK MONO (50 mm) – Initial state – out of the joint

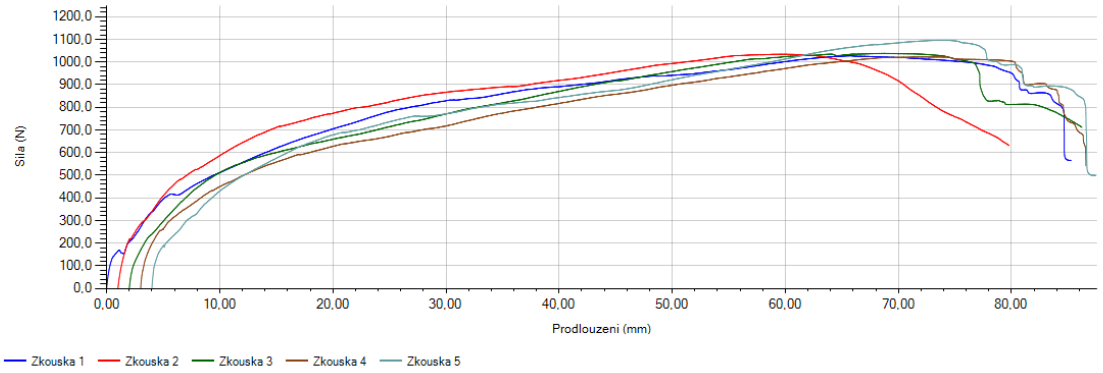


ECOROCK MONO (50 mm) – Initial state – at the joint

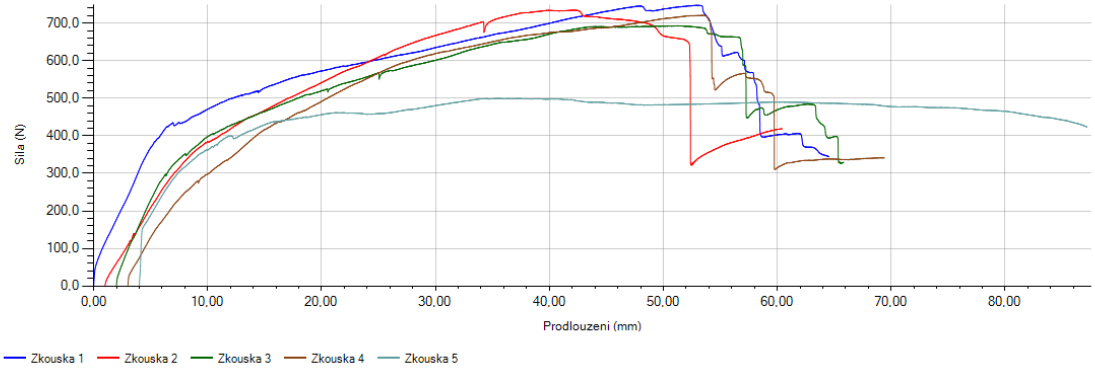


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (1/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

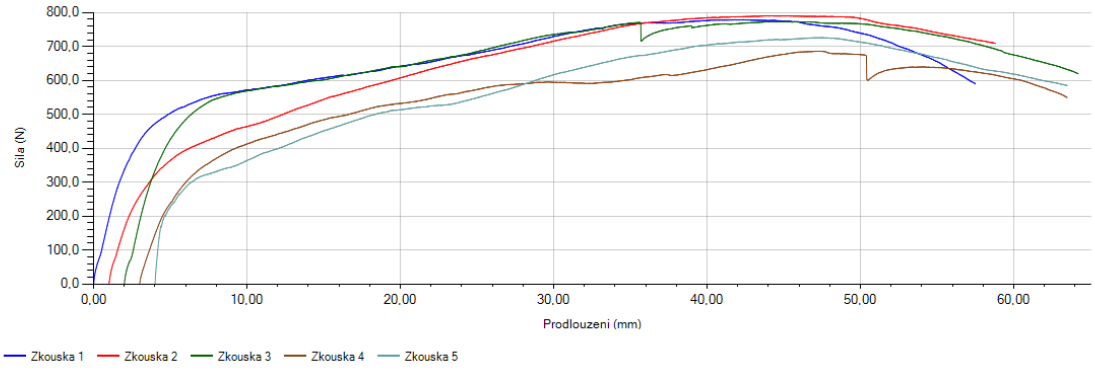
ECOROCK MONO (120 mm) – Initial state – out of the joint



ECOROCK MONO (120 mm) – Initial state – at the joint

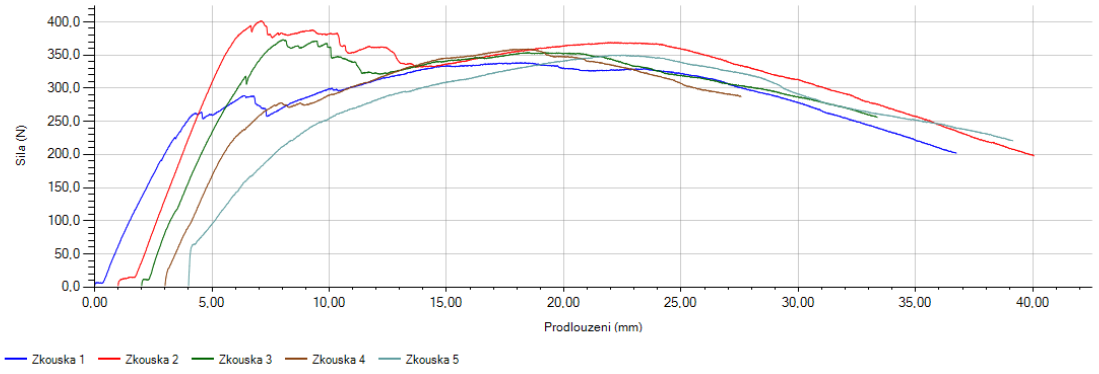


ECOROCK MONO (100 mm) – Initial state – out of the joint (with Fischer Termoz SV II ecotwist)

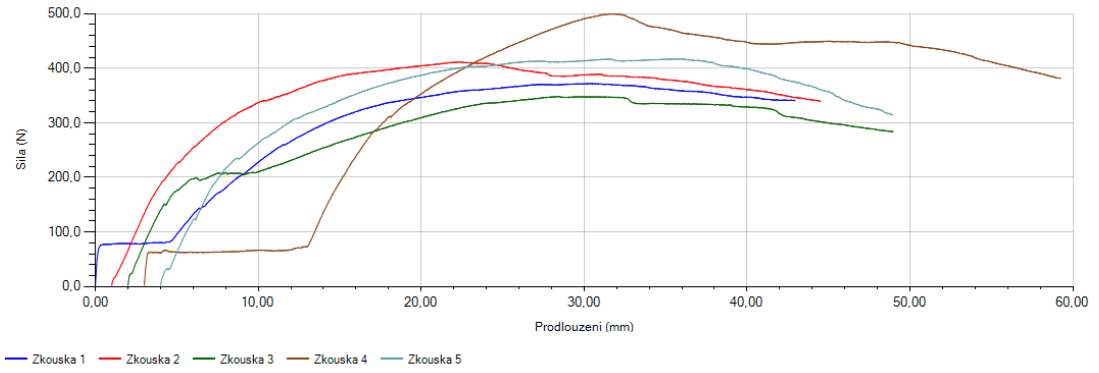


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (2/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

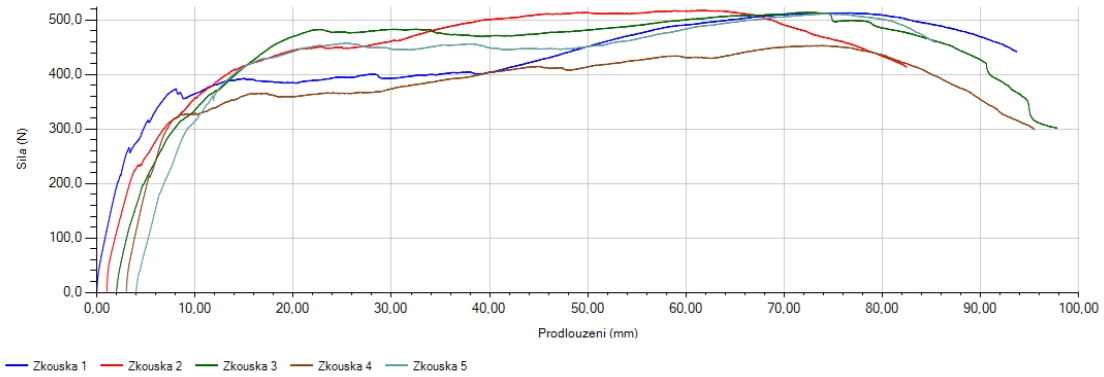
ECOROCK DUO (50 mm) – Initial state – out of the joint



ECOROCK DUO (80 mm) – Initial state – out of the joint

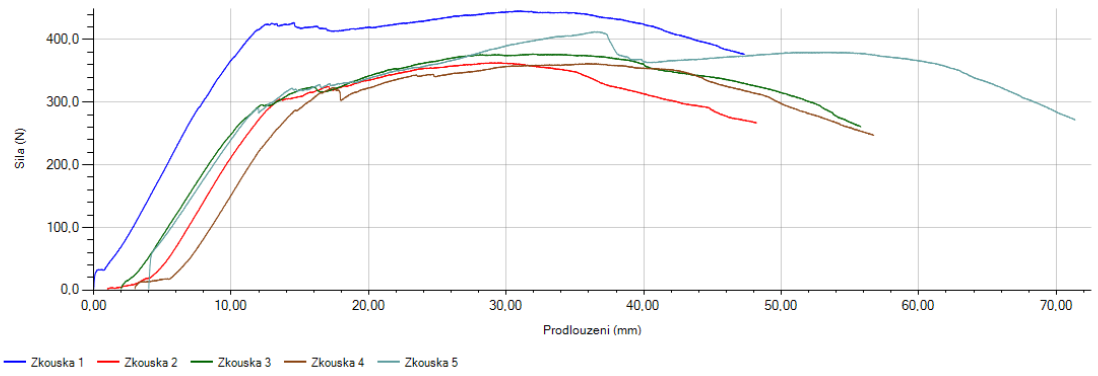


ECOROCK DUO (120 mm) – Initial state – out of the joint

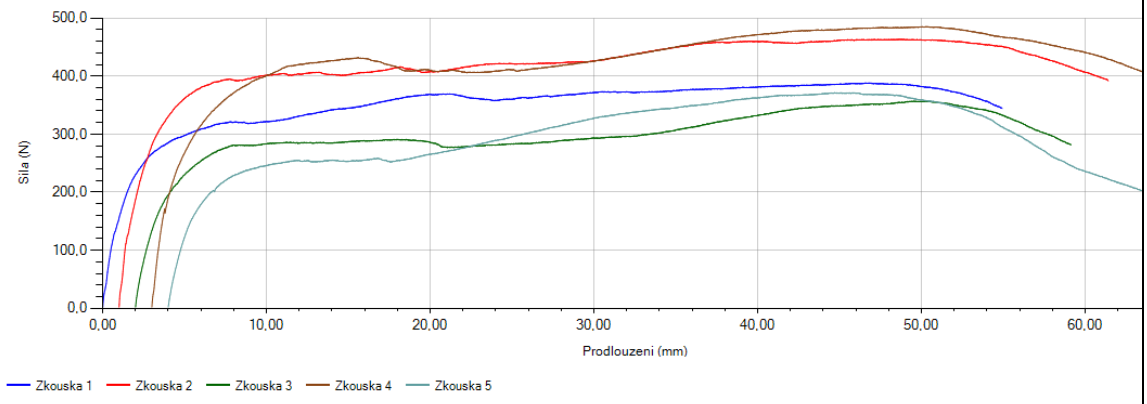


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (3/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ECOROCK DUO (80 mm) – Initial state –at the joint

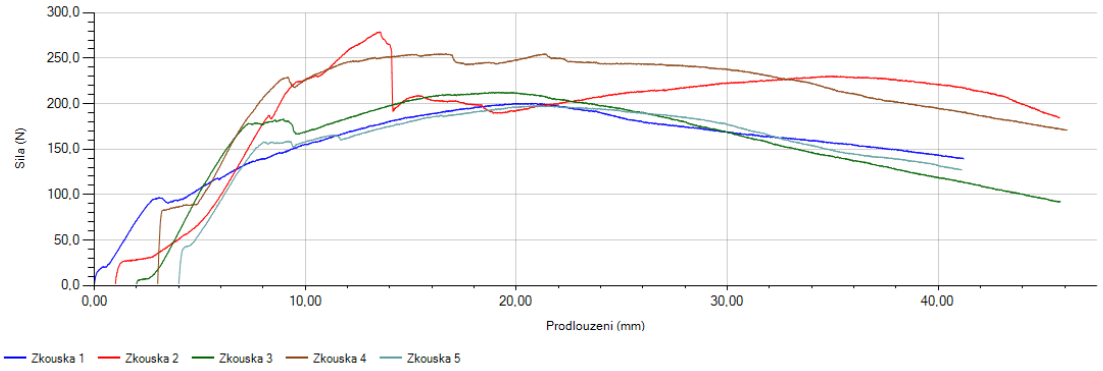


ECOROCK DUO (100 mm) – Initial state – out of the joint

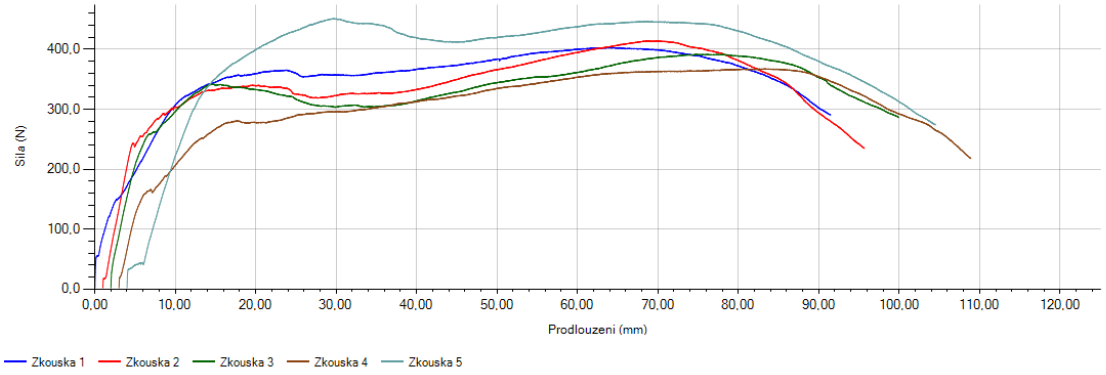


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (4/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ECOROCK DUO (50 mm) – Ageing state –out of the joint

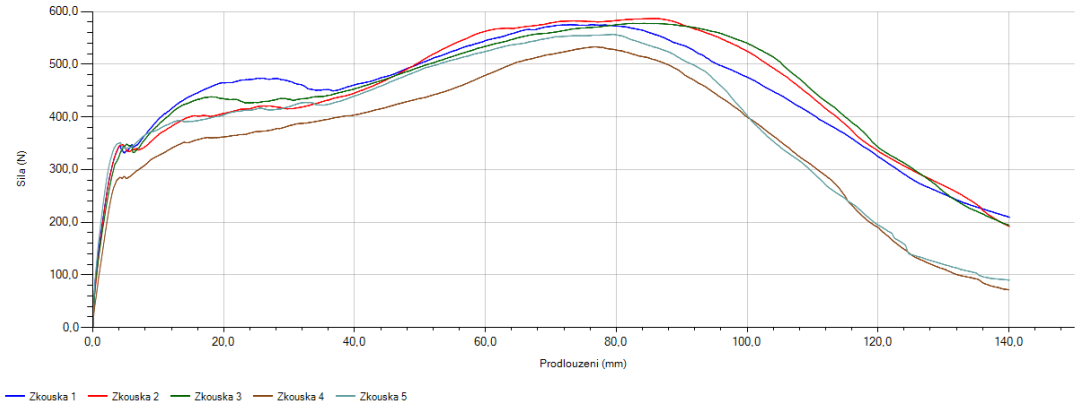


ECOROCK DUO (120 mm) – Ageing state – out of the joint

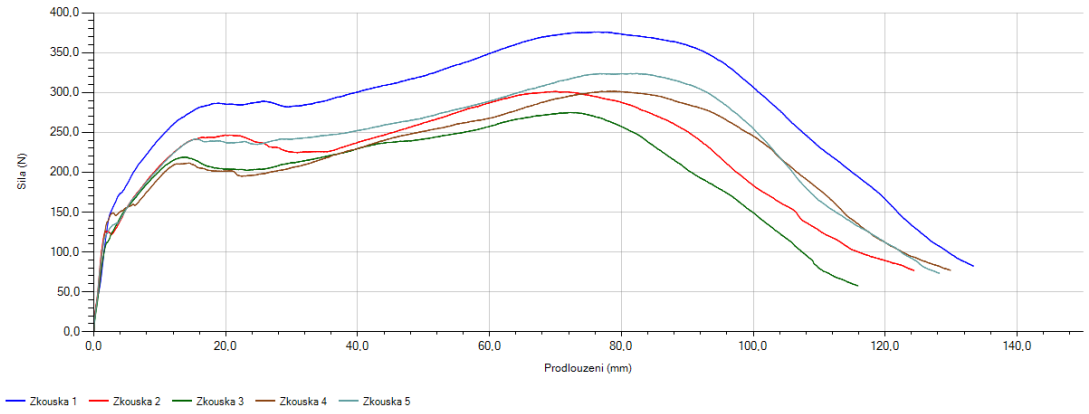


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (5/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ECOROCK DUO PR (130 mm) – Initial state –out of the joint

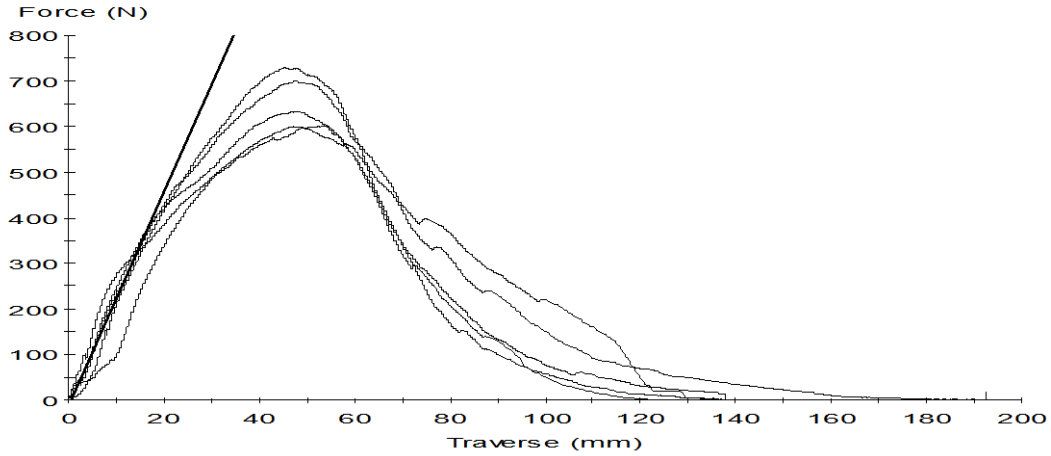


ECOROCK DUO PR (130 mm) – Ageing state –out of the joint

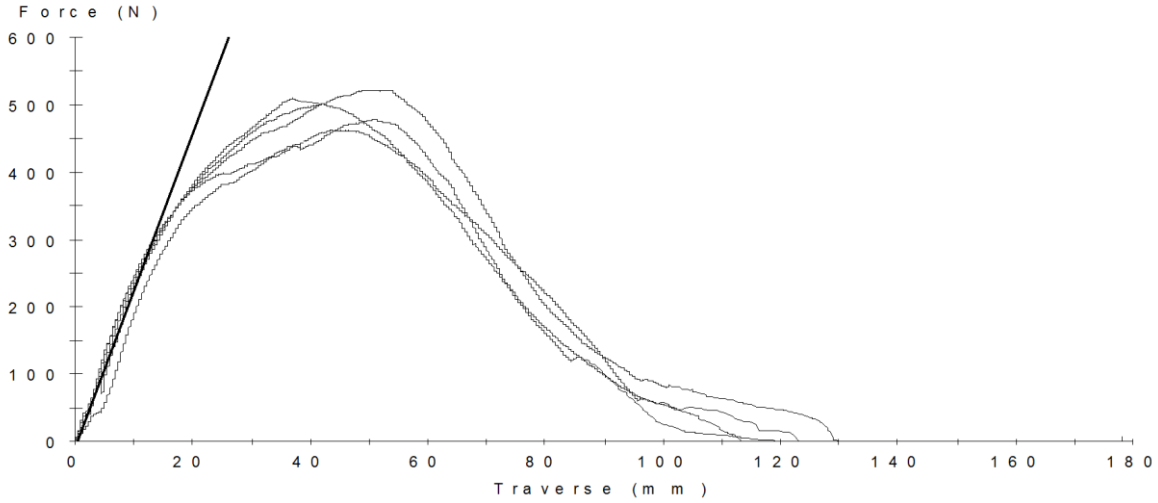


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (6/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

FKD-MAX C2 (80 mm) – Initial state –out of the joint
(with ejotherm NTK U 150)

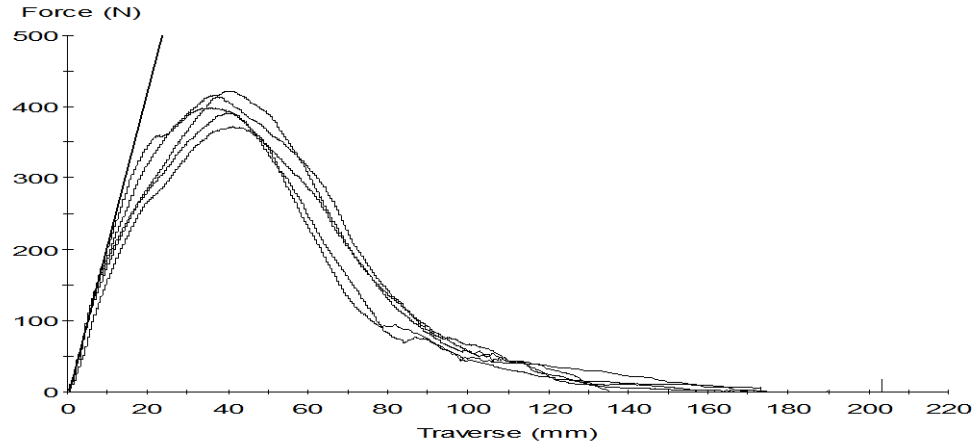


FKD-MAX C2 (80 mm) – Initial state –at the joint
(with ejotherm NTK U 150)

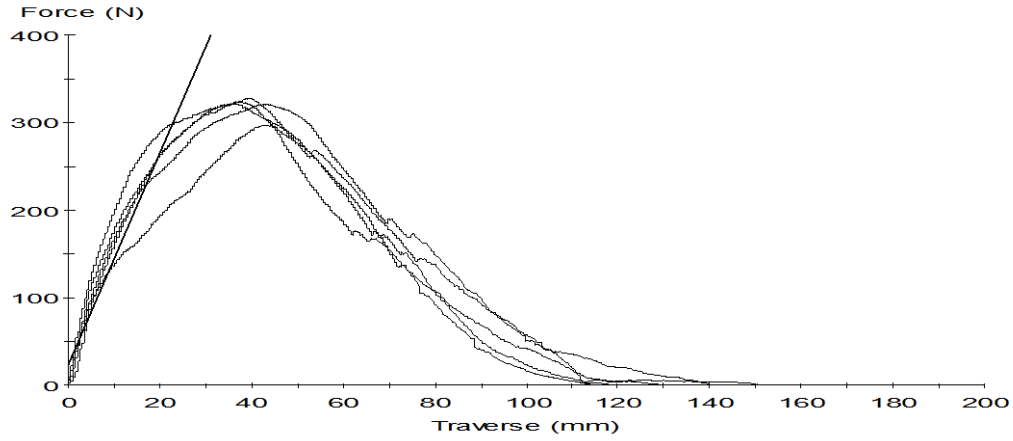


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (7/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

FKD-MAX C2 (80 mm) – Ageing state –out of the joint
(with ejotherm NTK U 150)

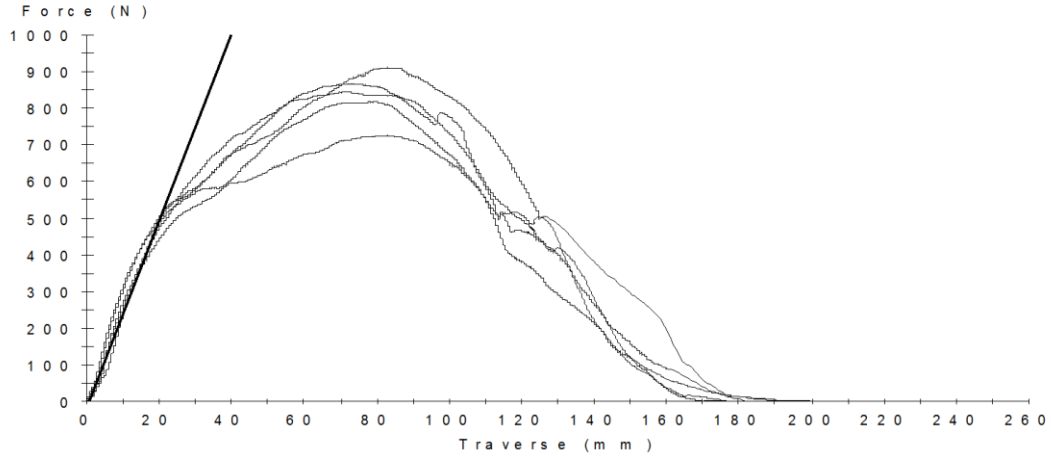


FKD-MAX C2 (80 mm) – Ageing state –at the joint
(with ejotherm NTK U 150)

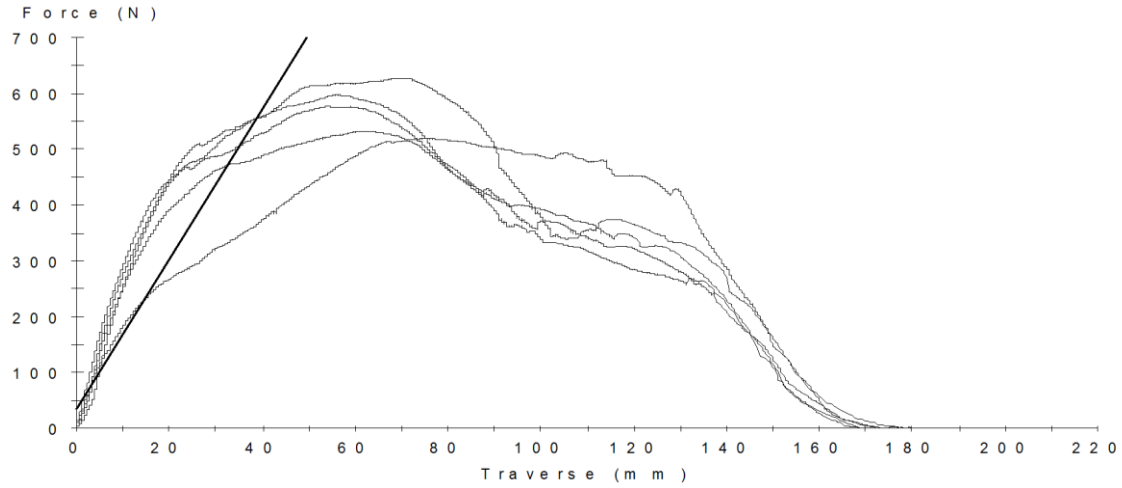


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (8/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

FKD-MAX C2 (140 mm) – Initial state –out of the joint
(with ejotherm NTK U 210)

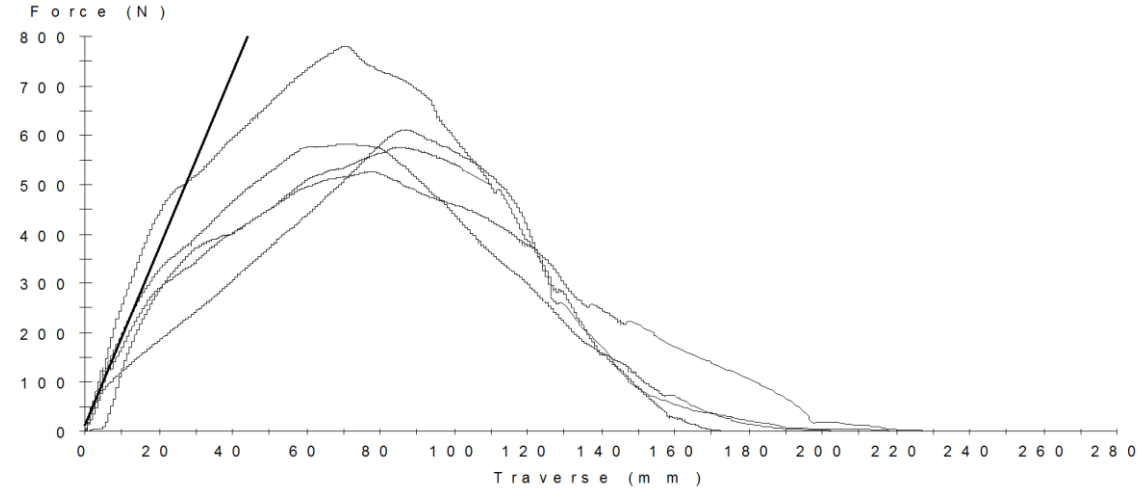


FKD-MAX C2 (140 mm) – Initial state –at the joint
(with ejotherm NTK U 210)

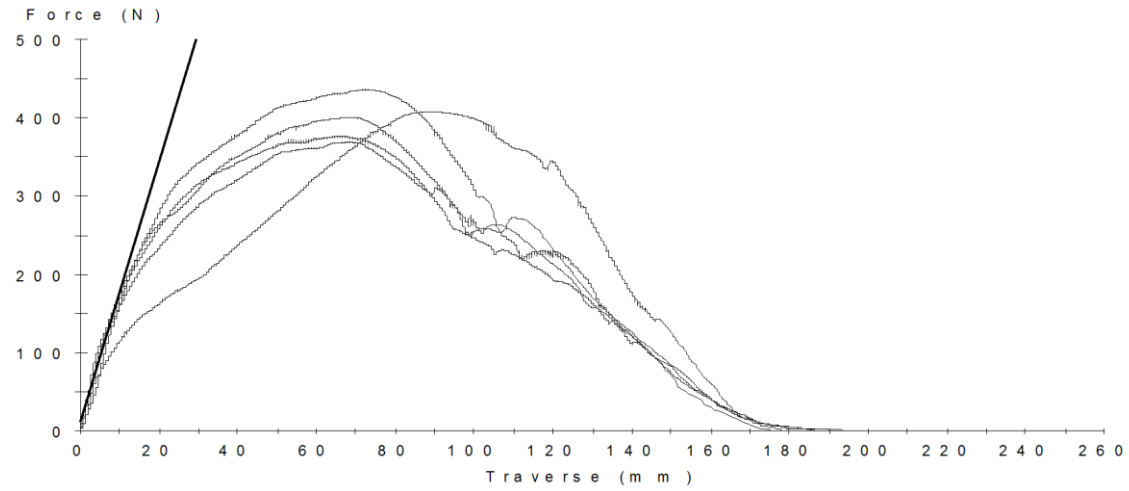


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (9/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

FKD-MAX C2 (140 mm) – Ageing state –out of the joint
(with ejotherm NTK U 210)

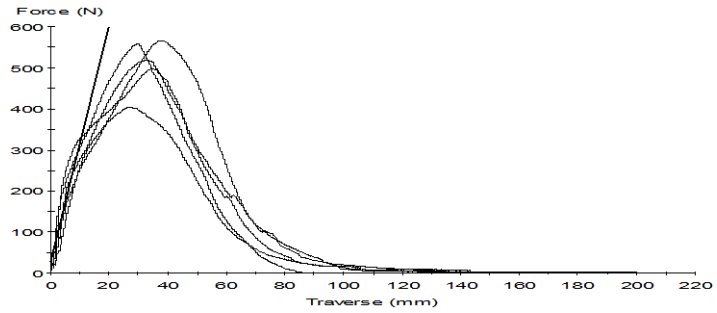


FKD-MAX C2 (140 mm) – Ageing state –at the joint
(with ejotherm NTK U 210)

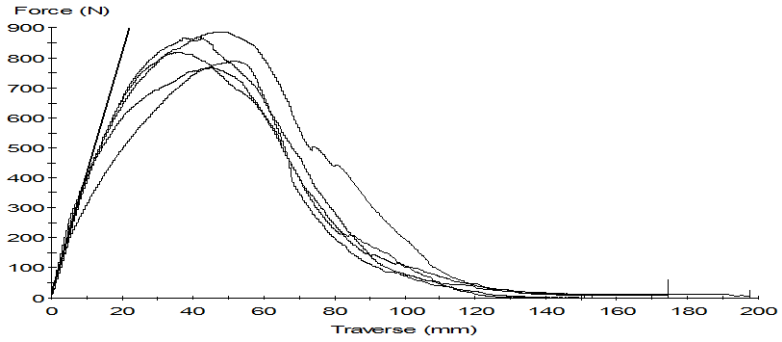


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (10/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

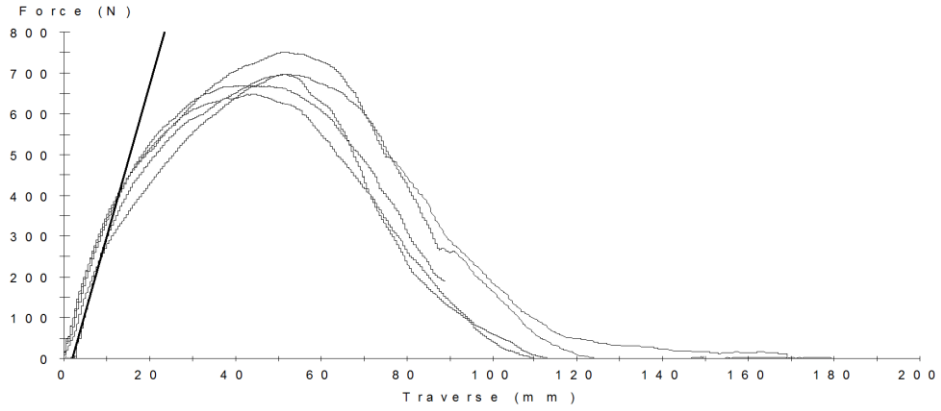
FKD-MAX C2 (100 mm) – Initial state –out of the joint
(with Fischer termoz SV II ecotwist)



FKD-MAX C2 (80 mm) – Initial state –out of the joint
(with STR U / STR U 2G + rosace VT 90)

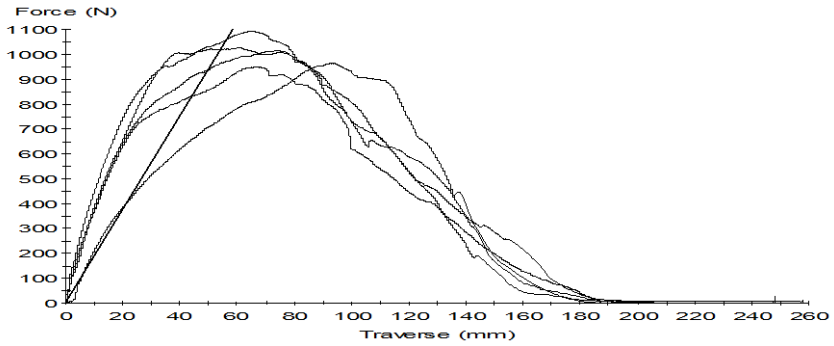


FKD-MAX C2 (80 mm) – Initial state – at the joint
(with STR U / STR U 2G 150 + rosace VT 90)

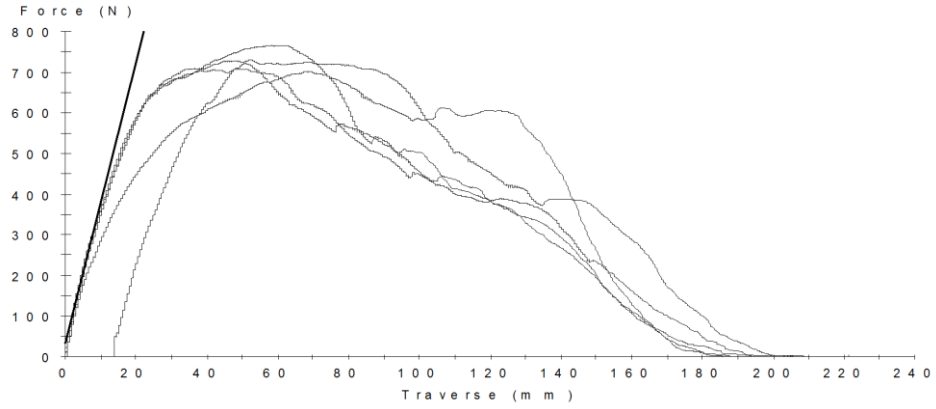


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (11/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

FKD-MAX C2 (140 mm) – Initial state –out of the joint (ejotherm STR U / STR U 2G 195+ rosace VT 90)

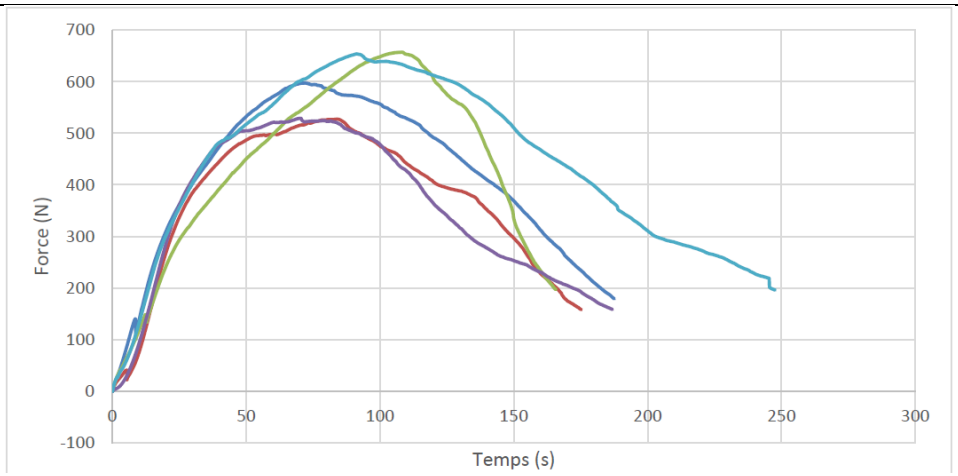


FKD-MAX C2 (140 mm) – Initial state –at the joint
(with ejotherm STR U /STR U 2G 195 + rosace VT 90)

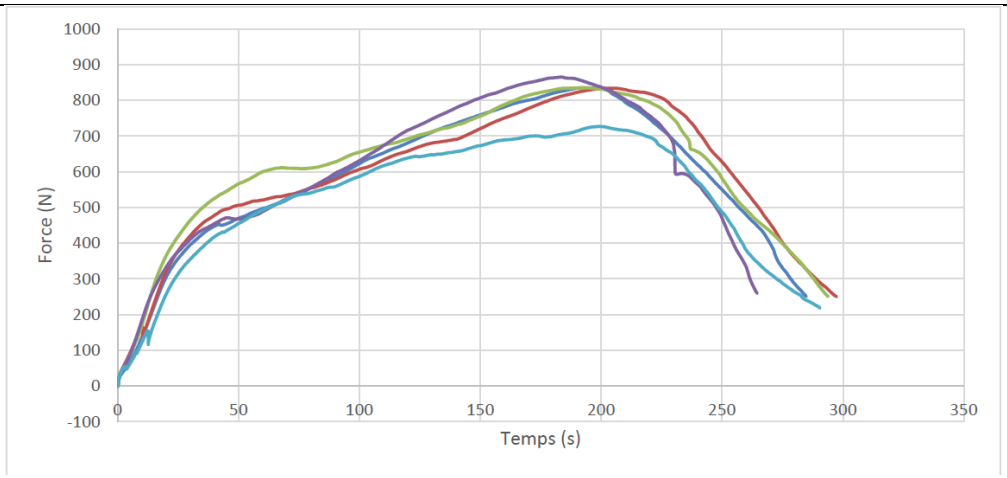


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (12/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

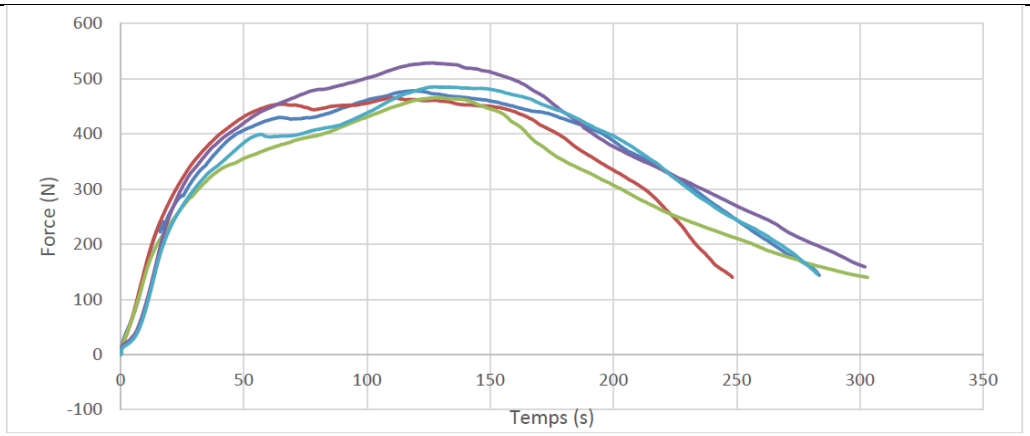
RE Coat + (60 mm) – Initial state –out of the joint



RE Coat + (100 mm) – Initial state –out of the joint

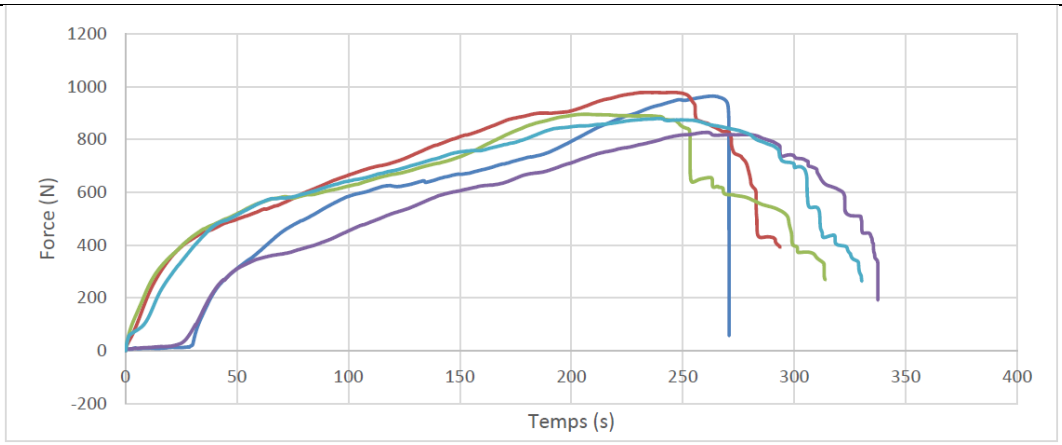


RE Coat + (100 mm) – Ageing state –out of the joint

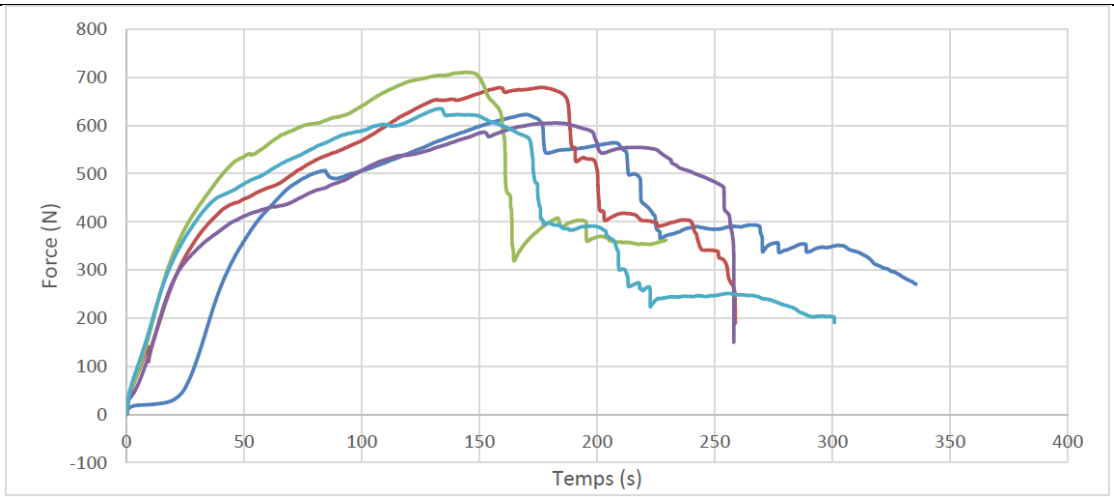


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (13/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

RE Coat + (120 mm) – Initial state –out of the joint

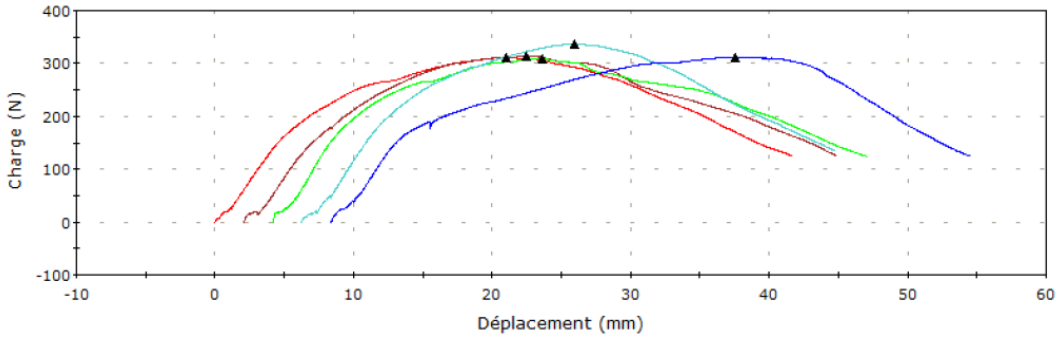


RE Coat + (120 mm) – Initial state – at the joint

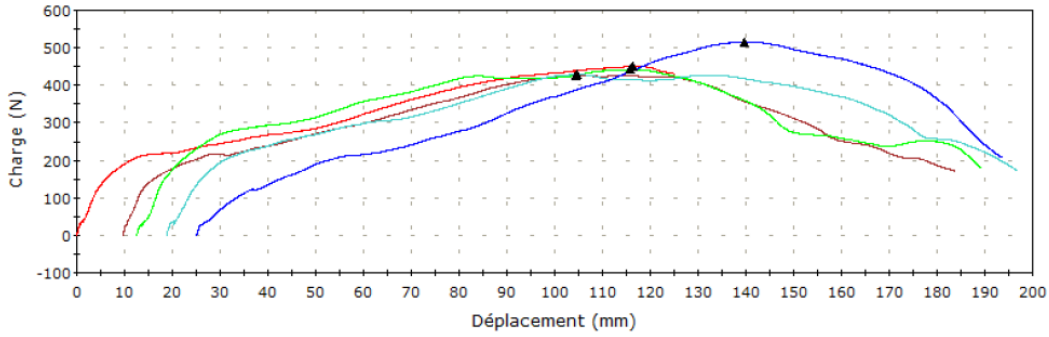


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (14/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

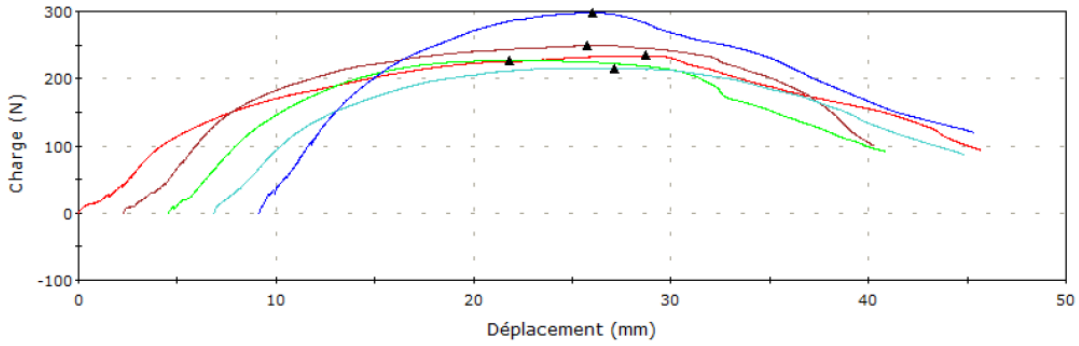
ISOVER ETICS 35 (60 mm) – Initial state –out of the joint



ISOVER ETICS 35 (200 mm) – Initial state –out of the joint

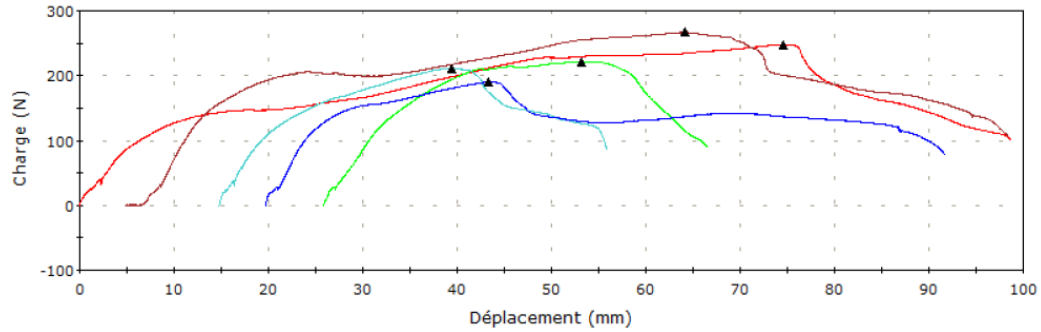


ISOVER ETICS 35 (60 mm) – Initial state –at the joint

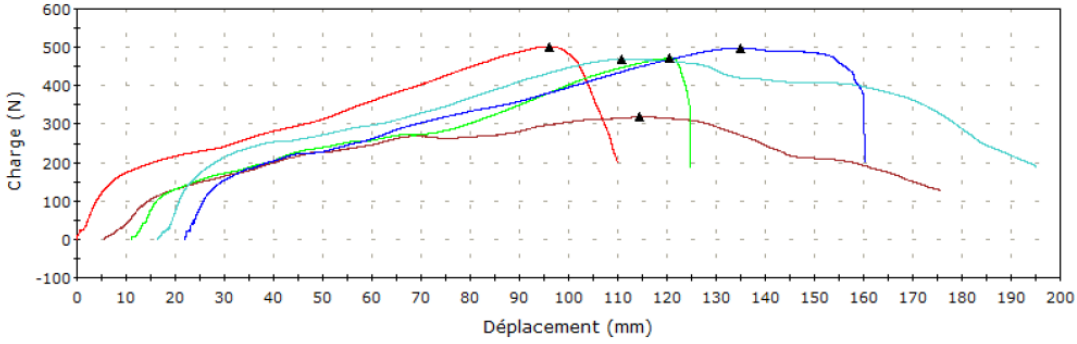


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (15/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

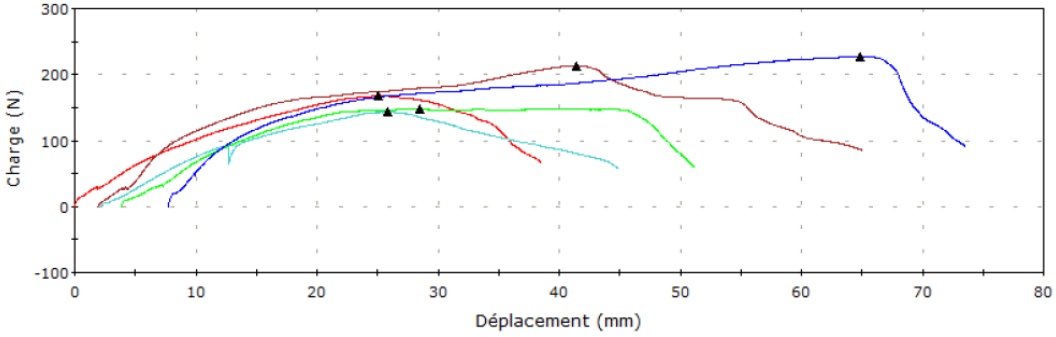
ISOVER ETICS 35 (200 mm) – Initial state –at the joint



ISOVER ETICS 35 (200 mm) – Ageing state –out of the joint

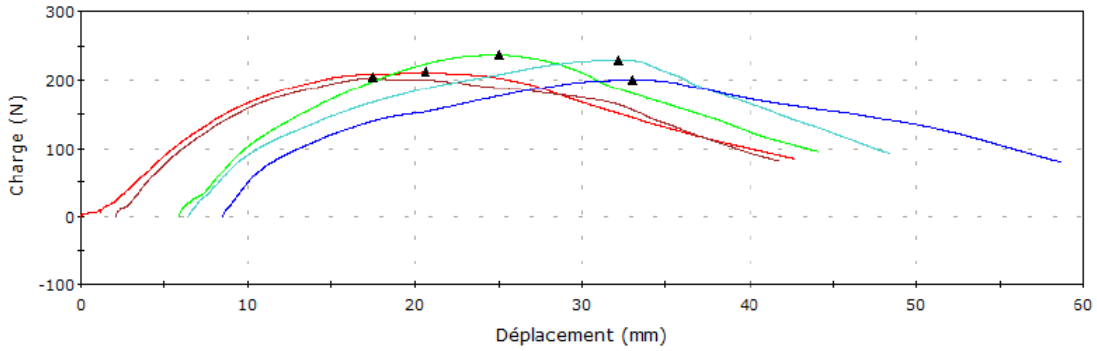


ISOVER ETICS 35 (200 mm) – Ageing state –at the joint

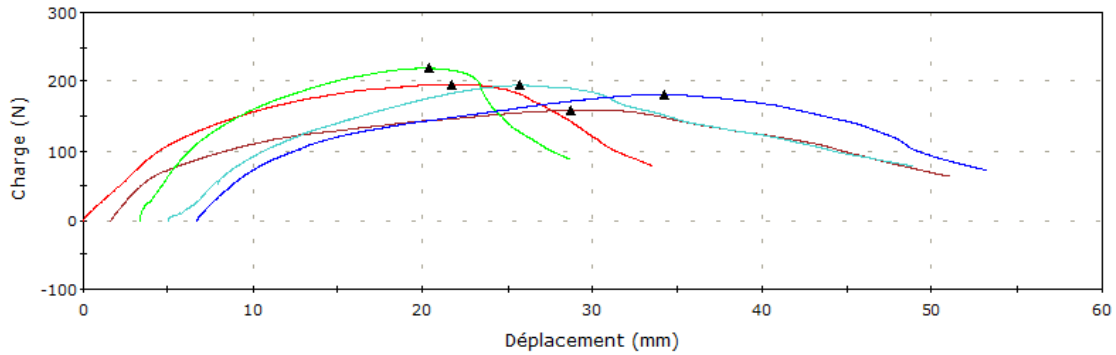


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (16/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

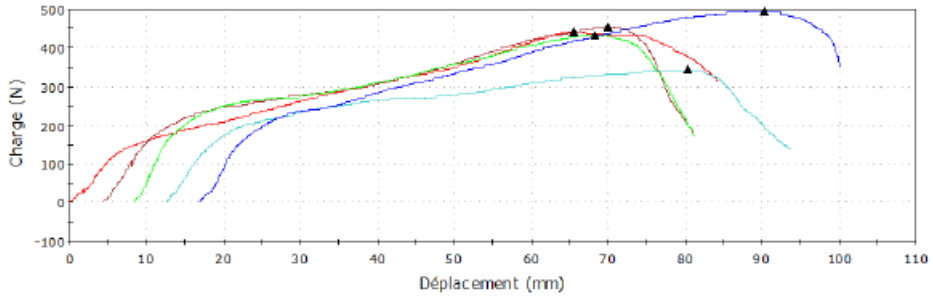
ISOVER ETICS 35 (60 mm) – Ageing state –out of the joint



ISOVER ETICS 35 (60 mm) – Ageing state –at the joint

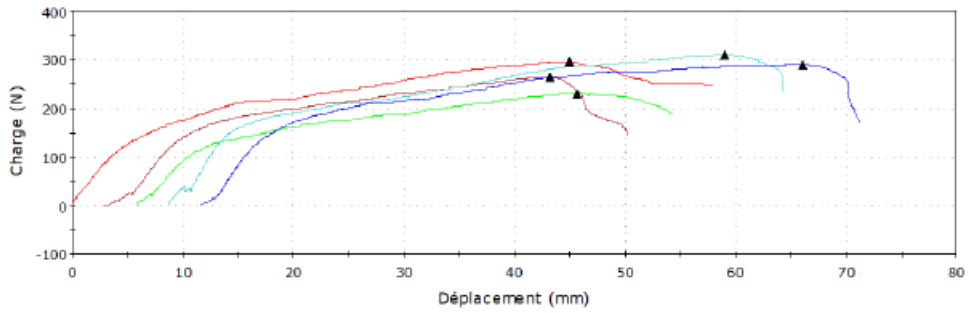


ISOVER ETICS 35 (120 mm) – Initial state –out of the joint

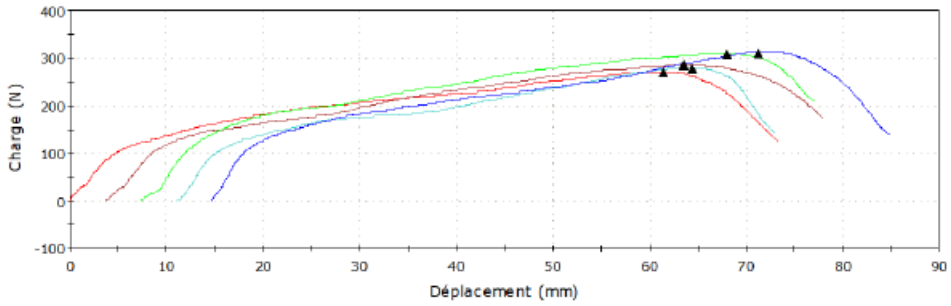


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (17/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

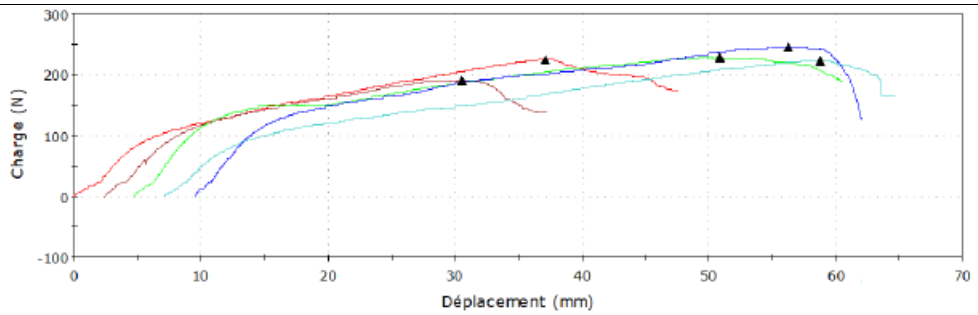
ISOVER ETICS 35 (120 mm) – Initial state – at the joint



ISOVER ETICS 35 (120 mm) – Ageing state –out of the joint

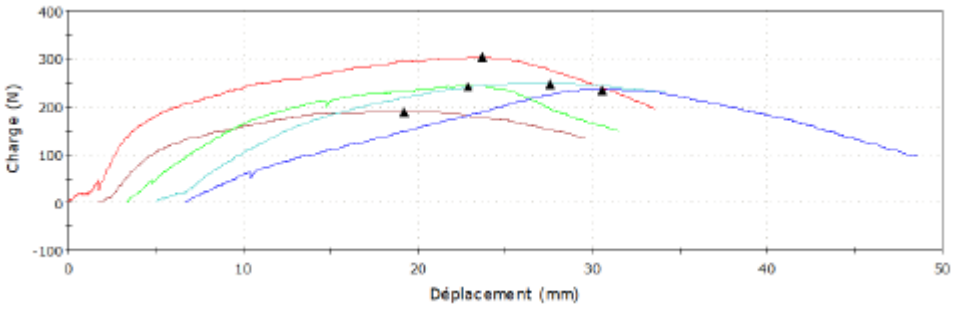


ISOVER ETICS 35 (120 mm) – Ageing state –at the joint

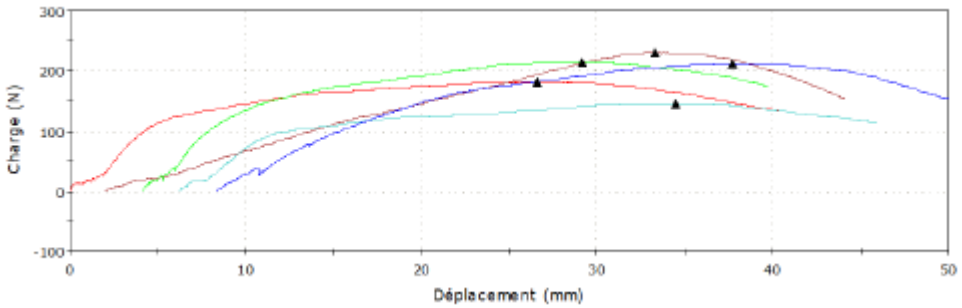


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (18/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ISOVER ETICS 35 (100 mm) – Initial state – out of the joint
(with Termoz SV II ecotwist)

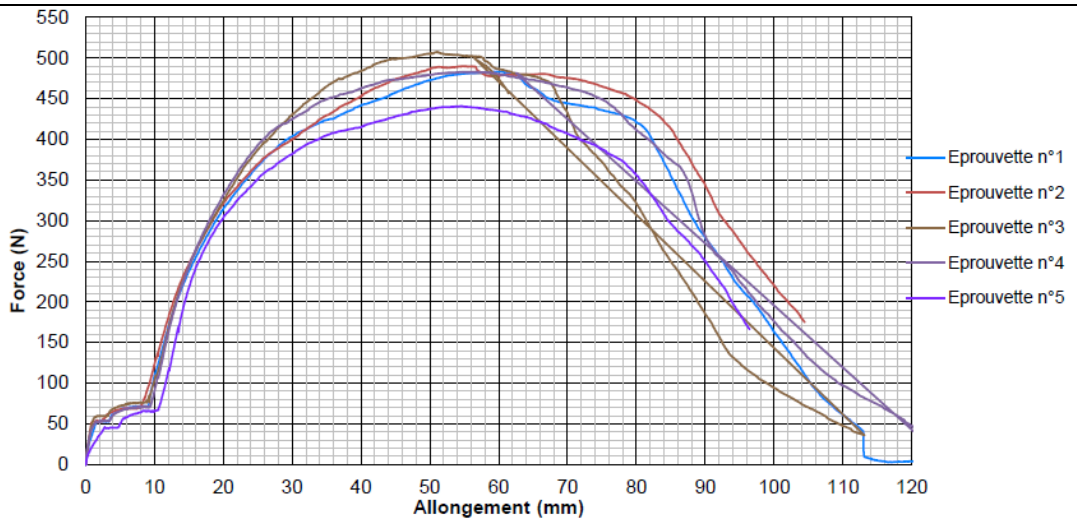


ISOVER ETICS 35 (100 mm) – Ageing state – out of the joint
(with Termoz SV II ecotwist)

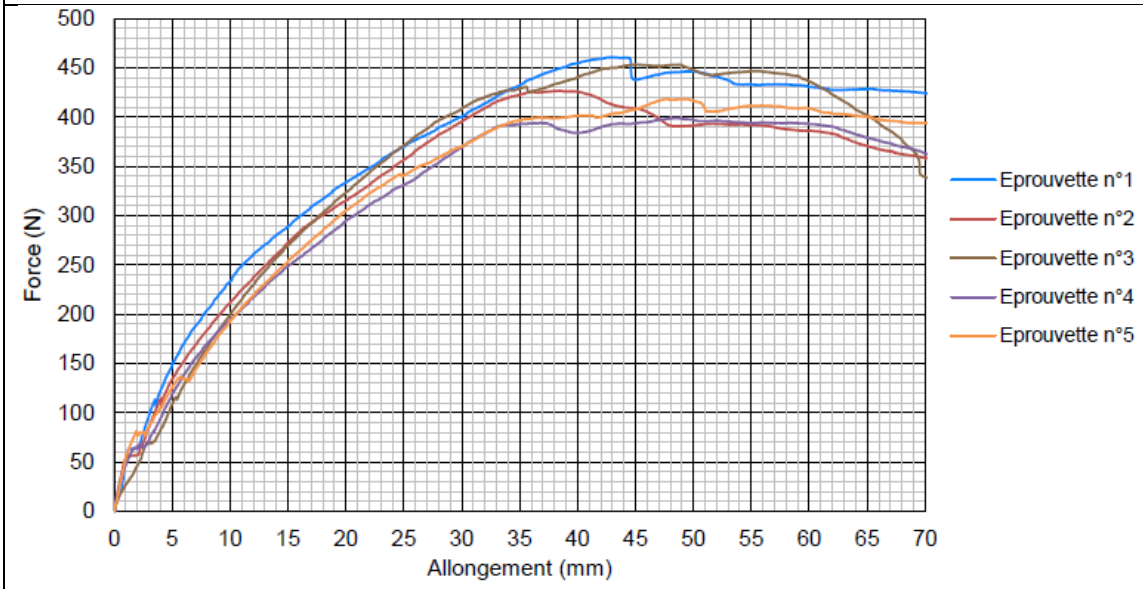


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (19/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ISOCOMPACT (60 mm) – Ageing state – out of the joint

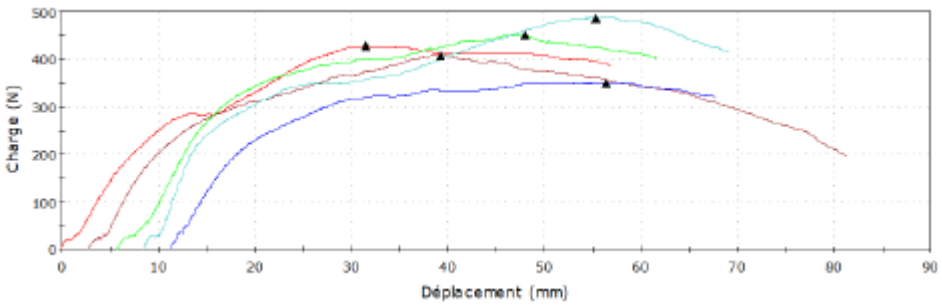


ISOCOMPACT (120 mm) – Ageing state – at the joints

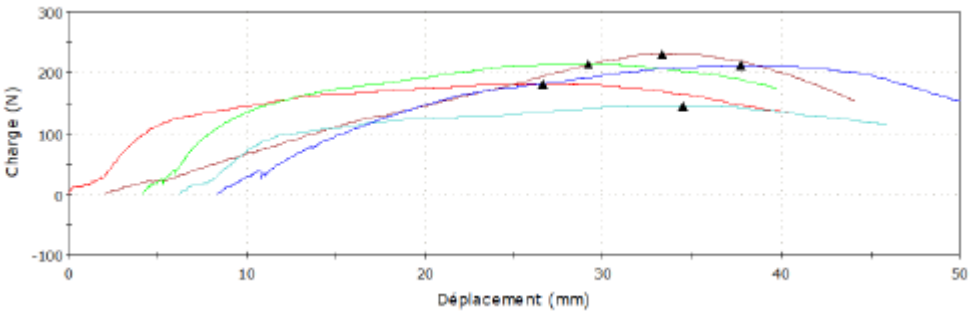


ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (20/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	

ISOCOMPACT (100 mm) – Initial state – out of the joint
(with Termoz SV II ecotwist)



ISOCOMPACT (100 mm) – Ageing state – out of the joint
(with Termoz SV II ecotwist)



ETICS PARISO LR-M / PAREXTHERM MW / SIKATHERM MW	**ANNEX 4 (21/21)** of ETA-11/0110-version 3
Pull-through tests – load/displacement graphs	