



Covenant K109369/02

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Replaces K109369/01

Page 1 of 7

Leadax Easy

STATEMENT BY KIWA

With this Covenant, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that legitimate confidence exists that the products supplied by

Leadax B.V.

as specified in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa Covenant manual K15013 dated April 2018.

Ron Scheepers
Kiwa

Publication of this certificate is allowed.

Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Leadax Easy

1 Scope of the Kiwa Covenant

1.1 Definition of Leadax Easy

Lead Free Flashing, made of recycled Polyvinyl butyral (PVB) with a self-adhesive butyl layer.

Specification nominal value:

Length:	5,0 m	(other sizes on request)
Width:	15 - 100 cm	
Thickness (incl. adhesive):	1,8 mm (2,5 mm)	
Delivered:	on roll	

Intended use of Leadax Easy

- Leadax Easy can be used as a water barrier in (cavity) walls and under casings;
- At the intersection between chimney bases and roof tiles;
- At chimney flashings to provide a water barrier;
- Leadax Easy can be applied to the base of dormers and skylights as a waterproofing layer and at the joint between dormer side walls and tiled roofs;
- As a watertight connection between an outside wall and an extension. Use Leadax Easy masonry clips to attach Leadax Easy to masonry joints;
- Leadax Easy can be used as valley gutters and waterproofing on the ridges of (tiled) roofs.

1.2 Assumed working life of the waterproofing system

"The provisions and the verification and assessment methods included or referred to in this Kiwa Covenant have been written based upon the assumed working life of the waterproofing system for the intended use of at least the life expectancy of the waterproofing system of 25*) years. These provisions are based upon the current state of the art and the available knowledge and experience.

"Assumed working life" means that, when an assessment following the Kiwa Covenant provisions is made, and when this working life has elapsed, the real working life may be, in normal use conditions, considerably longer without major degradation affecting the requirements.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee given by the product manufacturer or his representative or Kiwa Nederland B.V. issuing the Kiwa Covenant, but are regarded only as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works.

2 Fitness for use

2.1 Meaning of 'fitness for use'

'Fitness for (the intended) use' of the flashing system means that the products have such characteristics that Leadax Easy, when properly designed and built, satisfies the requirements of this Kiwa Covenant and is fit for its intended use and in this connection satisfies the requirements of this Kiwa Covenant, when properly installed.

2.2 Assessment of fitness for use

The relevant characteristics of the waterproofing system for its fitness for use (requirements) and the required verification methods to be employed are given in chapter 3, as well as the actual performed assessment of fitness for use and proven conformance to the relevant characteristics of the waterproofing system and its components.

Leadax Easy

3 Relevant characteristics of the waterproofing system, the required verification methods and the assessments of fitness for use

3.1 Dimensions

Characteristic	Verification Method	Assessment of the characteristic
Length	EN 1848-2	5,0 m
Width	EN 1848-2	15 – 100 cm
Thickness (incl. adhesive)	EN 1849-2	1,8 mm (2,5 mm)
Mass / m ²	EN 1849-2	2,3 kg/m ² (3,3 kg/m ²)
Visual defects	EN 1850-2	No visible defects
Dimensional stability	EN 1107-2	0,2 %

3.2 Reaction to fire

Characteristic	Verification Method	Assessment of the characteristic
Reaction to Fire`	EN ISO 11925-2:2020	Class E.

3.3 Functional properties

Characteristic	Verification Method	Assessment of the characteristic
Water tightness	EN 1928 - B	100 kPa - passed
Water absorption	M.O.A.T 66	1,1 %

3.4 Mechanical properties

Characteristic	Verification Method	Assessment of the characteristic
Tensile properties:		
Maximum tensile force length direction	EN 12311-2	≥375 N/50 mm
Maximum tensile force width direction	EN 12311-2	≥650 N/50 mm
Elongation at break length direction	EN 12311-2	≥60%
Elongation at break width direction	EN 12311-2	≥16%
Tear resistance length direction	EN 12310-1	≥200N
Tear resistance width direction	EN 12310-1	≥175N
Static loading – no adhesive		
soft support (A)	EN 12730	15 kg
hard support (B)	EN 12730	5 kg
Static loading – self adhesive		
soft support (A)	EN 12730	15 kg
hard support (B)	EN 12730	15 kg
Impact resistance – no adhesive		
hard support (A)	EN 12691	600 mm
soft support (B)	EN 12691	1500 mm
Impact resistance – self adhesive		
hard support (A)	EN 12691	600 mm
soft support (B)	EN 12691	1250 mm

Leadax Easy

Hail resistance (hard support)	EN 13583	26 m.s ⁻¹
Resistance to Wind uplift	Annex A	< 28 m/s - no changes
Water tightness after UVB ageing After 6000 hrs	EN 1928 at 60 kPa	Pass *)

*) Rule of thumb for accelerated aging test using UVB assumes that 3000 hrs UVB correspond to a lifespan of 15 years.

3.5 Raw materials

Raw materials are inspected upon arrival according to procedures laid down in ISO 9001:2015 manual per certificate: KSC-K55806/04

3.6 Joint strength

Characteristic	Verification Method	Assessment of the characteristic
Peel resistance – hot air joint:		
Length direction	EN 12316-2	60 N/50mm
Width direction	EN 12316-2	55 N/50mm
Peel resistance – Leadax High-Tack joint:		
Length direction	EN 12316-2	220 N/50mm
Width direction	EN 12316-2	170 N/50mm
Shear resistance – hot air joint::		
Length direction	EN 12317-2	420 N/50mm
Width direction	EN 12317-2	900 N/50mm
Shear resistance – Leadax High-Tack joint:		
Length direction	EN 12317-2	490 N/50mm
Width direction	EN 12317-2	900 N/50mm

3.8 Chemical resistance

Characteristic	Verification Method	Assessment of the characteristic
Chemical resistance to lime milk (Ca(OH) ₂)	EN 1847	Pass

Leadax Easy

3.9 Compatibility

Characteristic	Verification Method	Assessment of the characteristic
Compatibility with bitumen	BRL 1511-1	Pass
Compatibility with PVC	BRL 1511-1	Pass

4. Initial inspection and continuous surveillance by Kiwa

4.1 Initial inspection

During an initial inspection the IQC-scheme is audited, testing is witnessed and samples are taken for verification. Continuous surveillance will be performed two times a year, during which the process, the IQC-scheme is inspected.

4.2 Continuous surveillance

Test frequency

Characteristic	Method	Test frequency
Formulation used	Signed document	Once per visit
Length	EN 1848-2	once per batch / in-house
Width	EN 1848-2	once per batch in-house
Thickness	EN 1849-2	once per batch in-house
Mass / m ²	EN 1849-2	once per batch in-house
Visual defects	EN 1850-2	once per batch in-house
Dimensional stability	EN 1107-2	once per 5 years
Reaction to fire	EN ISO 11925-2	once per 5 ^{*)} years
Water tightness	EN 1928	once per 5 years
Water absorption	M.O.A.T. 66	once per 5 years
Tensile properties	EN 12311-2	once per month in-house
Tear resistance	EN 12310-1	once per month in-house
Static loading	EN 12730	once per 5 years
Impact resistance	EN 12691	once per 5 years
Hail resistance	EN 13583	once per 5 ^{*)} years
Resistance to Wind uplift	Annex A	Change of adhesive
UV-resistance		once per 5 years
Water tightness	EN 1928 - B	
Peel resistance of joints	EN 12316-2	once per 5 ^{*)} years
Shear resistance of joints	EN 12317-2	once per 5 ^{*)} years
Chemical resistance (Lime milk)	EN 1847	once per 5 ^{*)} years
Compatibility with bitumen	BRL 1511-1	once per 5 years
Compatibility with PVC	BRL 1511-1	once per 5 years

^{*)} In case of unchanged materials and or unchanged production process the frequency may be expanded to 10 years.

Leadax Easy

5. Conditions under which the fitness for the intended use is assessed

5.1 Manufacture of the product

Leadax Easy is produced from a combination of materials according to written specifications as documented in the formulation. The formulation is part of the IQC-scheme and of the audits performed by Kiwa.

The production facility is situated in Wapenveld, The Netherlands.

The product is produced in rolls:

- Nominal thickness (incl. adhesive) 1,8 mm (2,5 mm);
- Nominal length 5 m;
- Nominal width 15 – 100 cm;
- Each roll shall carry a batch number;
- Each roll shall carry the Kiwa word mark: Kiwa, the certificate number or the applicable logo.

5.2 Application instruction

For current application instructions refer to the packaging.

5.3 Recommendations for customers

Check at the time of delivery whether:

- the supplier has delivered in accordance with the agreement;
- the mark and the marking method are correct;
- the products show no visible defects as a result of transport etc.

If you should reject a product on the basis of the above, please contact:

Leadax BV

and, if necessary,

Kiwa Nederland B.V.

Consult the supplier's processing guidelines for the proper storage and transport methods.

Leadax Easy

Annex A – Resistance to Wind uplift

Introduction:

Roofs that have an intersection with chimney's, dormers, others are made waterproof with a lead flashing. Alternatives for Lead need a certain weight or stiffness to withstand wind uplift or can be mounted with an adhesive. To evaluate the resistance to wind uplift the following test has been executed.

Principle:

A specimen is attached according Installation Instruction in a typical application and exposed to wind at various angles and with a certain speed. The behavior of the specimen at that speed is evaluated.

Apparatus:

Wind generator:

A wind generator capable of generating the required amount of wind speed and a throughput opening of at least 50 cm.

Wind speed meters:

Device being able to continuously measure the wind speed in front of the specimen with an accuracy of +/- 3%.

Test Setup and specimen:

The test setup consists of a typical composition of roof, roof penetration and flashing specimen in variants and attachments that occur in practice.

Conditioning:

Given conditions.

Procedure:

The specimen is loaded at three different angles, 0 degrees, 45 degrees and 90 degrees (perpendicular) with the specified wind speeds. The wind is increased in steps up to the specified speed and held at that speed for at least 3 minutes.

Extra: if possible the expected failing behavior is initiated to determine the resistance to creep after fail initiation.

Evaluation:

The behavior, changes in shape and location, of the specimen is evaluated. The wind speed at which the specimen shows changes is recorded.