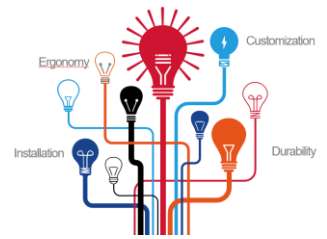




A MULTI DIRECTIONNAL UPDATE

MARKETING D. DEBOIS 08/2018

REXESS 2 – DIFFERENT TECHNICAL UPGRADE



A new way to open covers, taking a greater care of physical stress & pain



A fully customizable area to better & wider promote your identity

An innovative bedding technique, more reliable & less time demanding

An heavy-duty joint material providing extended durability



FULL ERGONOMICS: NEW CONCEPT FOR REXESS 2

Safe, Easy, Reliable



Unlock cover
with crowbar

1



Insert crowbar
until contact
with lug

2



Open cover
easily in just 1
operation

3



Reduction of lumbar stress during opening up to x %

FULL ERGONOMICS: NEW CONCEPT FOR REXESS 2

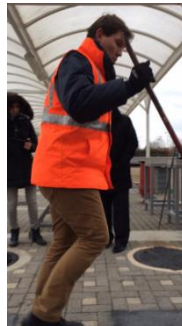
Safe, Easy, Reliable



REXESS 1

Unlock: pick, change gesture, manual lift

- Muscular strength: 289 daN
- Compression strength: 347 daN



Reduction of muscular strength by 72%
Reduction of muscular strength by 51%

REXESS 2

Unlock & lift with pick in 1 single gesture

- Muscular strength: 79 daN
- Compression strength: 170 daN

FULL ERGONOMICS: NEW CONCEPT FOR REXESS 2

Safe, Easy, Reliable



REXESS 2

Unlock & lift with pick in 1 single gesture



Reduction of muscular strength by 72%

Reduction of muscular strength by 51%



- crow bar inserted for unlocking and then lifting
- safe bar positioning: no movement when inserted
- no risk of breakage or injury
- Instruction sign on cover

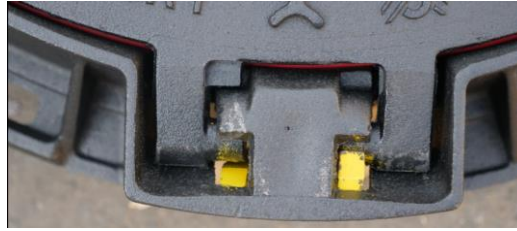
FULL ERGONOMICS: NEW CONCEPT FOR REXESS 2

Safe, Easy, Reliable



REXESS 2

New anti-theft spline



- Spline manually inserted from inside the frame, before bedding
- Bedding will block the spline
- No dismantling possible, unless mortar destroying
- 90° blocking is compatible with the new spline
- New spline not retro-fittable on Rexess 1

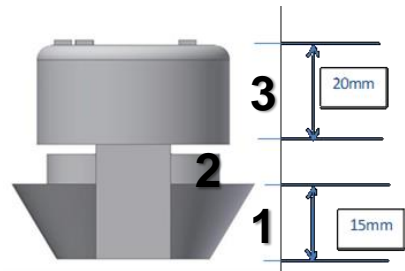
Animation will be available

INSTALLATION

An easier & faster tool to install product



install plus



Install Plus Frame Levelling System contributes to help eliminate the issues faced when installing access covers & gratings. To be exclusively used when the bedding material is **flowable and poured (liquid)**. Install plus is **not compatible with paste bedding** mortars.

1. Depth of the bedding material is assured by **4 nylon inserts (1) which are located on the underside of the frame flange (2)** which are pre-set to allow for a **minimum and consistent depth of bedding mortar of 15mm**.

2. **Enveloping of the flange creates a homogenous layer** with the material below the flange. The bedding indicator on the top of the insert (**3**) ensures a **20-mm minimum thickness** of the mortar **above the flange**.

3. **Rotating 4 nylon bolts** clockwise raises the frame to the required finished level, matching **road camber & gradient**. The bolts have a **range of adjustment of 15mm to 50mm**.

* For liquid mortar bedding conditions



install plus

Contents

- 1.  X4
 - 2.  X4
 - 3.  X4
- 1. Install foot insert
 - 2. Top cap / bedding level marker
 - 3. Levelling bolt (19mm head)

INSTALL PLUS FITTING INSTRUCTIONS

1. Use a drift or similar to remove excess flash in hole (Fig 1)
2. Place install foot insert into hole from below (Fig 2)
3. Align slots in top cap with barbs on install foot insert (Fig 3)
4. Push Top cap onto install foot until it clicks (Fig 4)
5. Thread the levelling bolt into the foot from above (fig 5)
6. Repeat process on all four corners (Fig 6)



Fig 1



Fig 2

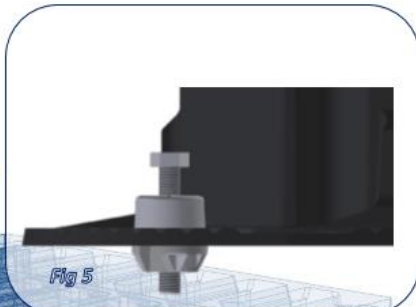


Fig 5



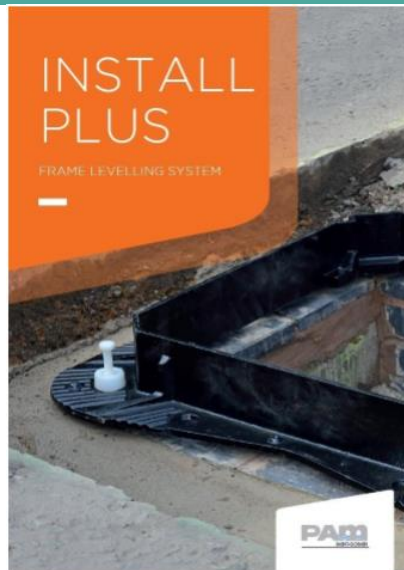
Fig 3



Fig 4



Fig 6



install plus

**Ironwork Installation and
Frame Levelling System**

INSTARMAC

PAM
SAINT-GOBAIN

Am
SAINT-GOBAIN

CUSTOMIZATION

A larger flexibility for smarter identification



4 solutions to customize covers depending needs & expectations:

- 1-2-3: Classical badging areas, Rexess 2 chequer plate is still visible
 - **NEW** 4: Full-badging, where the 100% of cover surface is customized, Rexess 2 identity no longer visible*
 - Remark: ventilation holes cannot be displaced, may clash with full badging logo
- *Normative standard markings still visible*

NEW

100%



HIGH PERFORMANCE GASKET

A solution against urban nuisances



Consistent Performing Industrial EVA Resin



The diverse Elvax® Industrial EVA resin portfolio has proven consistency, productivity and performance.

The uses include adhesives, extruded industrial and consumer goods, footwear, wire and cable insulation, and similar applications. Details available for commercial (non-proprietary) industrial EVA resin grades include composition, processing methods, physical properties and typical applications.

EVA copolymers **ExxonMobil** | Chemical

Ethylene vinyl acetate (EVA) copolymers are used in extrusion film processes for applications including packaging, surface protection and greenhouse covers, and in photovoltaic cell encapsulation.

EVA copolymers are used in molded caps and seals, footwear and car interiors. They are the base polymer in many adhesive resin formulations and in wire and electrical cables compounding.

Benefits

Low seal-initiation temperatures, high hot-tack, very good impact strength and excellent optical properties for extrusion film processes,

High transparency for photovoltaic cell encapsulation



EVA (Ethylene-vinyl Acetate)

This copolymer resin can be used in adhesives, sealants and coatings. It is the basis of many hot melt adhesives when blended with a petroleum wax and a resin tackifier. Also, it imparts plastic-like properties that enable wax to compete effectively with high-quality polymeric coatings. Flexibility, resilience, toughness and transparency increase with increasing vinyl acetate content.

ADVANTAGES:

- Flexible even at low temperatures
- Resilient
- Tough at low and moderate temperatures
- Crack resistant
- May be processed by conventional thermoplastic techniques or by conventional rubber processing techniques



HIGH PERFORMANCE GASKET

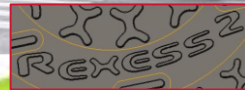
A solution against urban nuisances



- Excellent behaviour in hot & cold climates, keeps flexible, always easy to install
- does not crack when exposed to frozen conditions
- Does not soften and creep under sunny climates
- Resistant to load & shock: does not delaminate or tear
- High resistance vs sand or gravel abrasion
- Resistance to petrol & oil contained in rain / surface water



D400 performance mapping vs traffic intensities



Traffic intensity curve



VISUAL IDENTIFICATION



MAIN FEATURES

REXESS 2	features		
production	Blenod France		
logistics	Stock in Blenod early Q4 2018		
traffic intensity	normal / medium		
frame shape	circular & square		
frame depth	100mm		
frame external dimensions	785mmm	circular	square versions to come by end 2018
cover securing	1 spring bar		
joint	EVA		orange
ventilation	yes		vents holes not movable, may conflict with full badging
cover hinging	yes		ditto Rexess & Optea (interchangeable covers)
90° blocking	yes		
cover unlocking	crow bar		
cover lifting	crow bar	prising slot	unlock & lift in a single operation
anti-theft	spline	generation 2	compatible with 90° blocking, not compatible with Rexess 1
badging policy	generic	X	customisation X
badging areas	3 standard + 1 new	X	new: full cover x full badging maybe impacted by vents holes
bedding	INSTALL+ compatible		
compatibility with Rexess	yes		Rexess 2 compatible with Rexess 1 frame
frame mass	21.5		
cover mass	33.5		

overall 785 mm	55
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EN 124:2015 certification	ÜA	EFFECTIVE
	AENOR	AUTUMN 2018

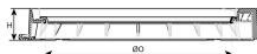
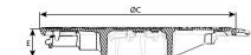
product availability	early Q4 2018
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COMMUNICATION AVAILABLE DATA SHEET (FULL SERVICE)

REXESS MUNICIPAL CASTINGS		06/04/2018
		VD40REURXS500

REXESS MUNICIPAL CASTINGS		06/04/2018
		VD40REURXS500

Manhole Cover REXESS 2 Class D400 Round frame Ø 785 – Safety – Non Ventilated



A	C	O	H	E	Frame bearing pressure	Total mass	Cover mass	Packaging	References
mm	mm	mm	mm	mm	N/mm ²	kg	kg		
785	845	808	104	92	4.15 (max EN124.7.5)	55.0	33.5	10	please contact us

Material and coating:

- Frame and cover in Ductile Iron EN GJS 400-15: water base coating
- Ring in EVA

Field of application:

- Group 4 (class D 400) in accordance with EN124 standard: carriageways of roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles

- Normal traffic and periodic inspections.

Main characteristics:

Unlocking and opening of cover:

- New prising slot for crow bar enabling spring bar unlocking and cover lifting / opening in 1 operation
- Avoids manual cover lifting & opening
- Significantly reduces muscular stress and lumbar compression strength

Locking and blocking of cover:

- Automatic locking by ductile iron spring bar
- Hinged cover, opens to 110°, blocks at 90° when closing
- Interchangeable cover between ventilated and non ventilated version
- Optional ¼ locking system
- Optional cover anti-theft spline, compatible with 90° blocking

Cover customisation and badging:

- On top of 3 standard badging areas
- "Full badging" option, allowing reproduction of large-size emblems, logos and arms

Note:

- Detailed study and potential adaptation of supplied emblem, logo, arms are necessary to ensure that they are compatible with: foundry process, EN 124.2 standard. In any case, a detailed drawing is supplied for approval
- Mandatory normative markings have been located on cover's exterior circumference, in order not to interfere with emblem, logo, arms
- Ventilation holes, when used, cannot be displaced, and may interfere with emblem, logo, arms to be reproduced. In any case, a detailed drawing is supplied for approval

Frame: circular version only, range extensions planned.

Frame: compatible with bedding system "Install Plus"

- 4 install Plus plastics inserts screwed through 4 frame holes can be height adjusted
- They both allow sufficient space between underneath level of the frame and chamber top to allow flowing of liquid mortar, materialisation, on upper surface of the frame, of the mortar thickness
- Using exclusively flowable mortar (see manufacturer's instruction sheet) is much easier, time saving and more reliable with install Plus. Mortar layer is homogeneous and precisely controlled

Note: Install Plus inserts do not contribute to apply on frame abnormal spot stresses.

Interchangeability Rexess vs Rexess 2

- Cover interchangeability: OK
- ¼ turn lock: OK
- Anti-theft spline: Rexess 2 spline can be used with existing Rexess, but 90° blocking will be deactivated



 MA 39	Amt der Wiener Landesregierung MAGISTRATSABTEILUNG 39 Prüf-, Überwachungs- und Zertifizierungsstelle der Stadt Wien WIEN-ZERT	OA 2018-0483
	Rinnböckstraße 15/2, A-1110 WIEN Tel.: (+43 1) 79514-8039, Fax: (+43 1) 79514-99-8039 E-Mail: post@ma39.wien.gv.at Homepage: www.ma39.wien.at	Seite 1 / 2

REGISTRIERUNGSBESCHEINIGUNG

Nr.: R-15.1.1-18-6919

Hiermit wird gemäß § 7 WBPBG¹ bestätigt, dass das (die) Bauprodukt(e)

Aufsätze und Abdeckungen für Verkehrsflächen
Schachtabdeckungen mit den Handelsbezeichnungen
„OPTEA 785“, „REXEL 785“ und „REXESS 2“,
bestehend aus Rahmen und Deckel
(Produktliste und Produktbezeichnungen lt. Anhang)

des Herstellers

Saint Gobain PAM métier Voirie
F-54705 Pont-à-Mousson Cédex, avenue Camille Cavallier PO box 129

des Herstellwerkes

Saint Gobain PAM
F-54700 Blénod-lès-Pont-à-Mousson, 35 avenue Victor Claude

den Bestimmungen des(r) Regelwerke(s)

ÖNORM EN 124-2 (15. September 2015)

entspricht (entsprechen), welches mit den Bestimmungen des(r) in der Baustoffliste OA,
Ausgabe 15. August 2015, festgelegten Regelwerke(s) ÖNORM EN 124 (1. Jänner 1995) samt
Anlage A, Punkt 15.1.1 gleichwertig ist (sind).

Das (Die) Produkt(e) unterliegt (unterliegen) einer werkseigenen Produktionskontrolle und einer Fremdüberwachung durch

MA 39 – Prüf-, Überwachungs- und Zertifizierungsstelle der Stadt Wien
A-1110 Wien, Rinnböckstraße 15

Nummer des Überwachungsvertrages: **MA 39 - SAB - Ü 1037/2004**

Gemäß § 6 Abs. 3 Z 3 WBPBG¹ gilt die Registrierungsbescheinigung bis: **7. Mai 2023**

Das (die) oben angeführte(n) Bauprodukt(e) ist (sind) gemäß § 10 Abs. 2 WBPBG¹ verwendbar und der Hersteller ist somit berechtigt, das (die) Bauprodukt(e) mit dem Einbauzeichen entsprechend § 10 Abs. 3 WBPBG¹ zu kennzeichnen. Die Registrierungsbescheinigung wird von den Vertragsparteien anerkannt.

Die wesentlichen Produktkennwerte sind im Anhang zu dieser Registrierungsbescheinigung dargestellt. Die Registrierungsbescheinigung umfasst inklusive Anhang zwei Seiten. Die vorliegende Registrierungsbescheinigung ersetzt die Registrierungsbescheinigung Nr.: R-15.1.1-14-6919 vom 2. Dezember 2014.

Hinweis: Diese Registrierungsbescheinigung verliert bei Änderung der ihr zugrunde liegender Regelwerke nach Ablauf der in der Baustoffliste OA enthaltenen Übergangsfrist, ihre Gültigkeit und damit endet die Berechtigung zur Anbringung des Einbauzeichens

Der Zeichnungsberechtigte: Für den Leiter der Zertifizierungsstelle: Der Leiter der Prüf-, Überwachungs- und Zertifizierungsstelle


Dipl.-Ing. Martin Fehringer
Oberstadtbaurat


Dipl.-Ing. Bernhard Ramstaller
Oberstadtbaurat


Dipl.-Ing. Georg Pommer
Senatsrat

Wien, 8. Mai 2018



¹ Gesetz über die Bereitstellung von Bauprodukten auf dem Markt, deren Verwendung und Marktüberwachung (Wiener

CERTIFICATION DOCUMENTS

AENOR

Certificado AENOR de Producto Dispositivos de cubrimiento y de cierre



033/000129

AENOR certifica que la organización

SAINT-GOBAIN PAM ESPAÑA, S.A.

con domicilio social en PO PÉREZ GALDÓS, 59 39005 SANTANDER (Cantabria - España)

suministra Dispositivos de cubrimiento y de cierre para zonas de circulación utilizadas por peatones y vehículos. Dispositivos de Fundición

conformes con UNE-EN 124-1:2015 (EN 124-1:2015)
UNE-EN 124-2:2015 (EN 124-2:2015)

Referencias Detalladas en el Anexo al Certificado

Centro[s] de producción FONDERIE DE BLEND, AVENUE VICTOR CLAUDE BP129 54705 PONT À MOUSSON (Francia)

Esquema de certificación Para conceder este Certificado, AENOR ha ensayado el producto y ha comprobado el sistema de la calidad aplicado para su elaboración. AENOR realiza estas actividades periódicamente mientras el Certificado no haya sido anulado, según se establece en el Reglamento Particular RP 033.01.

Este certificado anula y sustituye al 033/000129, de fecha 2017-10-18

Fecha de primera emisión 2017-08-30
Fecha de modificación 2018-06-27
Fecha de expiración 2022-08-30

Rafael GARCÍA MEIRO
Director General

AENOR INTERNACIONAL S.A.U.
Génova, 6 28004 Madrid, España
Tel. 91 432 60 00 - www.aenor.com

Entidad de certificación de producto acreditada por ENAC con acreditación nº 01/C-PR271

Certificado AENOR de Producto Dispositivos de cubrimiento y de cierre

033/000129

Anexo al Certificado

FAMILIA	MODELO	CLASE	DIMENSIONES ABERTURA (mm)	Nº PLANO (Constructivo-estructural) TAPA	Nº PLANO (Constructivo-estructural) MARCO	MATERIAL
KOREX	KOREX MC	D400	600	5.1/2463	5.1/2463	ENGS-400-15
KOREX	KOREX MR	D400	600	5.1/3377	5.1/2462	ENGS-400-15
REGISTRO AKSESS 300	CBAK00HN_	B125	220 x 220	5.2/618	5.2/619	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 400	CBAK40HN_	B125	300 x 300	5.2/602	5.2/603	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 450	CBAK45HN_	B125	350 x 350	5.2/635	5.2/636	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 500	CBAK50HN_	B125	400 x 400	5.2/566	5.2/567	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 600	CBAK60HN_	B125	500 x 500	5.2/599	5.2/600	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 700	CBAK70HN_	B125	600 x 600	5.2/597	5.2/598	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO AKSESS 800	CBAK80HN_	B125	700 x 700	5.2/580	5.2/579	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO PAMREX 400	CDPA60_N	D400	ø 617	5.1/1241	5.1/369	FUNDICIÓN GRAFITO ESFEROIDAL
REGISTRO PAMREX version 2	CDRIN60_Y	D 400	608	5.1/3762	5.1/3614	FUNDICIÓN GRAFITO ESFEROIDAL

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INSTALLATION INSTRUCTIONS

- Bedding instructions booklet available (digital)
- Abstract: focus to key installation steps to strictly follow:

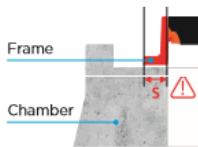
2 The frame must be completely supported by the top of the chamber, **without any cantilever**.



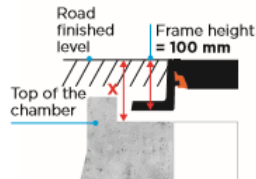
If needed, **Increase** the bearing surface of the chamber by widening (internally or externally) the concrete wall to make sure that a dimensional match with the frame is fully achieved.

Note: The use of concrete spare rings to achieve this dimensional matching is a solution that can be considered.

3 Some frames feature reduced "S" bearing surfaces, (e.g. frames having an 785mm outside diameter) which as a consequence increases the frame bearing pressure applied on the top of the chamber. **In this case, mortars or concrete with a 50 MPa-resistance to compression as a minimum must be used.** The field of application of such frames may be restricted to low traffic conditions only.



7 For a 100mm-deep frame, **check** that the height interval **x** left between the road level and the top of the chamber surface **stretches from 14 up to 18 cm**, depending on the bedding material used. See n°8.



In case of a **75mm-deep** frame, use **exclusively a mortar with a 50 MPa-resistance to compression**. See n°8 and manufacturer's instruction sheet.

8 **Apply** a first layer of bedding material, recommended thicknesses:

- Class CP 325 or 500 concrete: **8 cm**
- Quick setting mortars with 30 or 50 MPa-resistance to compression: **4 cm**

