



Date : 03/05/2018

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER 'Assessment Reports' are not acceptable	18564A 18565A	CERTIFICATE NUMBER	CF5603
DATE OF ISSUE	See below	DATE OF ISSUE	30 th January 2018
DATE OF EXPIRY	N/A	DATE OF EXPIRY	29 th January 2023
Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	Den Braven Benelux BV Denariusstraat 11 4903 RC OOSTERHOUT Netherlands	NAME OF THE BRAND	Zwaluw®
FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Den Braven Benelux BV Denariusstraat 11 4903 RC OOSTERHOUT Netherlands	MODEL / NO	FP Acrylic Sealant
WEBSITE	www.denbraven.com	LOGO ON THE PRODUCT	Zwaluw® FP Acrylic Sealant
TEL	+ 31(0) 162491000	EMAIL	Ruud.Schrama@denbraven.nl



Product Details From Test Report

Reference
Test Report
page NO

DESCRIPTION OF THE PRODUCT

(TECHNICAL DETAILS FROM TEST REPORT,
SUCH AS ACTUAL FIRE
RATINGS/DIMENSIONS/THICKNESS/
SENSITIVITY ETC)

18564A

AnAcrylic sealant for fire protection where there are substrates abut walls
and floors.

5

TEST STANDARD

(SUCH AS ASTM/BS EN/ DN ETC)

EN 1366-4:2006

1

TEST DESCRIPTION

EN 1366-4:2006-Fire resistance tests for service installations
Part 4 Linear Joint seals

2

SPECIFICATION OF TEST SPECIMEN

1.3.1.4 Overview of the joint seals

Position	Supporting construction	Orientation	Joint seal			Movement		
	Types*		Type	Width [mm]	Thickness [mm]	Type	Δ [%]	Δ [mm]
A	RW/RW	Vertical	Zwaluw * FP Silicone Sealant [4]	10	10	-	-	-
B	RW/RW	Vertical	Zwaluw * FP Silicone Sealant [4]	20	13	-	-	-
C	RW/RW	Vertical	Zwaluw * FP Silicone Sealant [4]	30	16	-	-	-
D	RW/RW	Vertical	Zwaluw * FP Silicone Sealant [4]	40	20	-	-	-
E	RW/RW	Vertical	Zwaluw * FP PU Foam [5]	10	100	-	-	-
F	RW/RW	Vertical	Zwaluw * FP PU Foam [5]	20	100	-	-	-
G	RW/RW	Vertical	Zwaluw * FP PU Foam [5]	30	100	-	-	-
H	RW/RW	Vertical	Zwaluw * FP Acrylic Sealant [2]	10	10	-	-	-
I	RW/RW	Vertical	Zwaluw * FP Acrylic Sealant [2]	20	13	-	-	-
J	RW/RW	Vertical	Zwaluw * FP Acrylic Sealant [2]	30	16	-	-	-
K	RW/RW	Horizontal	Zwaluw * FP Acrylic Sealant [2]	30	16	Shear	5	1.5
L	RW/RW	Horizontal	Zwaluw * FP Hybrid Sealant [3]	20	13	Shear	25	5
M	RW/RW	Horizontal	Zwaluw * FP Acrylic Sealant [2]	10	10	Shear	5	0.5
N	RW/RW	Horizontal	Zwaluw * FP Hybrid Sealant [3]	10	10	Shear	25	2.5

* RW = Standard rigid wall construction

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TEST RESULT

(SUCH AS PASSED CRITERIA___/
COMPLIED TO___/
DURATION___/OBSERVATION___/ETC)

OBSERVATIONS		EXCEEDS (MINUTES)		
Position	Thermal insulation – I*	Integrity – E*		
	ΔT _M = 180°C	Ignition of cotton pad	Spontaneous and sustained flaming	Failure with gap gauge
A	220	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
B	150	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
C	182	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
D	132	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
E	75 ⁽²⁾	75 ⁽²⁾	75 ⁽²⁾	75
F	51 ⁽²⁾	51 ⁽²⁾	51 ⁽²⁾	51
G	46 ⁽²⁾	46 ⁽²⁾	46 ⁽²⁾	46
H	215	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
I	154	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
J	159	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
K	207	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
L	192	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
M	220	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾
N	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾	241 ⁽¹⁾

* Classification according to EN 13501-2.

(1) The test was stopped after 241 minutes at the sponsor's request.

(2) Not failed until the moment of failure with gap gauge.

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PRODUCT APPLICATION GUIDELINE (END USE) (CLEARLY STATE THE END USE WITH SPECIFIC APPLICATION, SUCH AS EXACT FIRE RATING/TO BE INSTALLED IN_/TO BE INSTALLED AT_/TO BE CONNECTED WITH_/TO BE INSTALLED WITH_ ETC ALONG WITH ANY WARNINGS SUCH AS NOT TO BE USED IN_/NOT TO BE INSTALLED AT_/ NOT TO BE INSTALLED WITH_ ETC.	The walls shall be at least 100mm thick and have at least the same fire rating as that required for the linear joint seal. Block/masonry and concrete gap faces will be within the density min of 550 kg/m³, and gap faces will be free from loose or flaking material. Flexible wall constructions with a thickness of min 100mm, consisting off 50mm steel stud, 50mm thick 100 kg/m³ density stone wool boards, and min 2 x layers 12.5mm gypsum board. The maximum height of the flexible wall seals is 1000mm.	
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Product Details From Test Report

Reference
Test Report
page NO

DESCRIPTION OF THE PRODUCT

(TECHNICAL DETAILS FROM TEST REPORT,
SUCH AS ACTUAL FIRE
RATINGS/DIMENSIONS/THICKNESS/
SENSITIVITY ETC)

18565A

A Acrylic sealant for fire protection where there are substrates about walls
and floors.

5

TEST STANDARD

(SUCH AS ASTM/BS EN/ DN ETC)

EN 1366-4:2006

1

TEST DESCRIPTION

EN 1366-4:2006-Fire resistance tests for service installations

2

SPECIFICATION OF TEST SPECIMEN

1.3.1.4 Overview of the joint seals

Position	Supporting construction		Orientation	Joint seal			Movement		
	Types*			Type	Width [mm]	Thickness [mm]	Type	Δ [%]	Δ [mm]
1	RW/RW		Vertical	Zwaluw® FP Hybrid Sealant [3]	10	10	-	-	-
2	RW/RW		Vertical	Zwaluw® FP Hybrid Sealant [3]	20	13	-	-	-
3	RW/RW		Vertical	Zwaluw® FP Hybrid Sealant [3]	30	16	-	-	-
4	RW/RW		Vertical	Zwaluw® FP Hybrid Sealant [3]	40	20	-	-	-
5	RW/TSC		Vertical	Zwaluw® FP Hybrid Sealant [3]	5	10	-	-	-
6	RW/TSC		Vertical	Zwaluw® FP Hybrid Sealant [3]	20	13	-	-	-
7	RW/TSC		Vertical	Zwaluw® FP PU Foam [4]	8	100	-	-	-
8	RW/TSC		Vertical	Zwaluw® FP PU Foam [4]	20	100	-	-	-
9	RW/PW		Vertical	Zwaluw® FP Acrylic Sealant [2]	10	10	-	-	-
10	RW/PW		Vertical	Zwaluw® FP Acrylic Sealant [2]	10	10	-	-	-
11	RW/RW		Horizontal	Zwaluw® FP Hybrid Sealant [3]	40	20	Shear	25	10
12	RW/PW		Horizontal	Zwaluw® FP Acrylic Sealant [2]	10	10	-	-	-
13	RW/TSC		Horizontal	Zwaluw® FP PU Foam [4]	20	100	-	-	-
14	RW/TSC		Horizontal	Zwaluw® FP Hybrid Sealant [3]	20	13	-	-	-
15	RW/TSC		Horizontal	Zwaluw® FP PU Foam [4]	8	100	-	-	-
16	RW/TSC		Horizontal	Zwaluw® FP Hybrid Sealant [3]	5	10	-	-	-

* RW = Standard rigid wall construction (thickness: 100 mm; density: 850 kg/m³)
TSC = Timber standard construction (thickness: 100 mm; density: 460 kg/m³)
PW = Standard flexible wall construction (thickness: 100 mm; according to EN 15662-4:2012 § 4.2.4 Separating elements – Flexible constructions)

6



TEST RESULT

(SUCH AS PASSED CRITERIA ___/
COMPLIED TO ___/
DURATION ___/OBSERVATION ___/ETC)

OBSERVATIONS		EXCEEDS (MINUTES)		
Position	Thermal insulation – I*	Integrity – E*		
	$\Delta T_w = 180^\circ\text{C}$	Ignition of cotton pad	Spontaneous and sustained flaming	Failure with gap gauge
1	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
2	178	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
3	200	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
4	208	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
5	154 ⁽²⁾	154 ⁽²⁾	154	154 ⁽²⁾
6	125	138 ⁽²⁾	138	138 ⁽²⁾
7	150 ⁽²⁾	150 ⁽²⁾	150	150 ⁽²⁾
8	121	123 ⁽²⁾	123	123 ⁽²⁾
9	157	196 ⁽²⁾	196	196 ⁽²⁾
10	151	196 ⁽²⁾	196	196 ⁽²⁾
11	238	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
12	153	191 ⁽²⁾	191	191 ⁽²⁾
13	92	94 ⁽²⁾	94	94 ⁽²⁾
14	134	242 ⁽¹⁾	242 ⁽¹⁾	242 ⁽¹⁾
15	112 ⁽²⁾	112 ⁽²⁾	112	112 ⁽²⁾
16	148 ⁽²⁾	148 ⁽²⁾	148	148 ⁽²⁾

* Classification according to EN 13501-2.

(1) The test was stopped after 242 minutes at the sponsor's request.

(2) Not failed until the moment of spontaneous and sustained flaming.

14

PRODUCT APPLICATION GUIDELINE (END USE)

(CLEARLY STATE THE END USE WITH
SPECIFIC APPLICATION, SUCH AS EXACT
FIRE RATING/TO BE INSTALLED IN ___/TO
BE INSTALLED AT ___/TO BE CONNECTED
WITH ___/TO BE INSTALLED WITH ___ ETC
ALONG WITH ANY WARNINGS SUCH AS
NOT TO BE USED IN ___/NOT TO BE
INSTALLED AT ___/ NOT TO BE INSTALLED
WITH ___ ETC.

The walls shall be at least 100mm thick and have at least the same fire rating as that required for the linear joint seal.

Block/masonry and concrete gap faces will be within the density min of 550 kg/m³, and gap faces will be free from loose or flaking material.

Flexible wall constructions with a thickness of min 100mm, consisting off 50mm steel stud, 50mm thick 100 kg/m³ density stone wool boards, and min 2 x layers 12.5mm gypsum board. The maximum height of the flexible wall seals is 1000mm.



Laboratory and Certification body details

NAME OF CERTIFICATION BODY	Exova (UK) Limited trading as Warrington Certification	NAME OF TEST FACILITY	WFRGENT N.V. (WARRINGTON FIRE GENT)
CERTIFICATION BODY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Holmesfield Road Warrington WA1 2DS United Kingdom	TEST FACILITY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Ottergemsesteenweg- Zuid 711 9000 GENT Belgium
WEBSITE	www.warringtoncertification.com	WEBSITE	www.wfrgent.com
TEL	+44 (0) 1925 655116	TEL	+32:9:243 77 50
EMAIL	info@exova.com	EMAIL	info@wfrgent.com
ACCREDITED BY (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE CERTIFICATION BODY, ALONG WITH WEBSITE)	UKAS (United Kingdom Accreditation Services)	ACCREDITED BY (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE LABORATORY, ALONG WITH WEBSITE)	BELAC - Belgian Accreditation Body
AS PER (STANDARD TO WHICH THE CERTIFICATION BODY IS ACCREDITED TO)	BS EN ISO/IEC 17065:2012	AS PER (STANDARD TO WHICH YOUR ORGANIZATION IS ACCREDITED TO)	ISO/IEC 17025:2005
VALIDITY (EXPIRY DATE OF CERTIFICATION BODY ACCREDITATION)	Initial Accreditation Granted: 01 st August 1999 Current Certificate Issued: 28 th June 2016	VALIDITY (EXPIRY DATE OF LABORATORY ACCREDITATION)	Current Certification Issued: 21 st Jan 2013
REFERENCE NUMBER: (CERTIFICATION BODY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	UKAS Certification Body No.0087 Notified Certification Body No. 1121	REFERENCE NUMBER: (THE LABORATORY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	Notified Body No. 1173
CERTIFICATION MARK			



(ENDORSEMENT) TO BE SIGNED BY MANUFACTURER			
NAME OF MANUFACTURER'S SIGNATORY	Mr. Ruud Schrama	SIGNATURE	
EMAIL / TEL	Ruud.Schrama@denbraven.nl 31(0) 162491000	FACTORY OFFICIAL SEAL	 Den Braven Benelux B.V. P.O. Box 194 4900 AD Oosterveld (NB) The Netherlands T +31 (0)162 - 451 000 F +31 (0)162 - 451 217 info@denbraven.nl www.denbraven.com
NOTES: I Undertake that all data and information provided are genuine and accurate			

(ENDORSEMENT) TO BE SIGNED BY CERTIFICATION BODY			
NAME OF CERTIFICATION BODY SIGNATORY	Paul Duggan – Certification Manager	SIGNATURE	
EMAIL / TEL	ewcl@exova.com / +44 (0) 1925 655116	CERTIFICATION BODY OFFICIAL SEAL	
NOTES: I Undertake that all data and information provided are genuine and accurate			

ATTACHMENTS:

- COPY OF 'CERTIFICATE OF COMPLIANCE' ISSUED BY CERTIFICATION BODY (OLD OR NEW)

CERTIFICATE OF APPROVAL

No CF 5603

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

DEN BRAVEN BENELUX B.V.

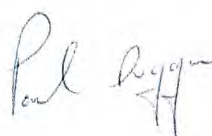
Denariusstraat 11, 4903 RC Oosterhout (NB), Netherlands
Tel: +31 (0) 162 49100

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT
Zwaluw[®] FP Acrylic Sealant

TECHNICAL SCHEDULE
**TS40 Fire Resisting Linear
Joint Seal Systems**

**Signed and sealed for and on behalf of Exova (UK) Limited trading as
Warrington Certification**



Paul Duggan
Certification Manager



Issued: 30th January 2018
Next audit test due: 30/01/2021
Frequency: Every 3 years
Valid to: 29th January 2023

Page 1 of 3



CERTIFICATE No CF 5603

DEN BRAVEN BENELUX B.V.

Zwaluw[®] FP Acrylic Sealant

1. This approval relates to the use of Zwaluw[®] FP Acrylic Sealant linear joint sealing systems for the fire protection of movement joints within walls. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the thickness, width and reference for Zwaluw[®] FP Acrylic Sealant linear joint sealing systems required to provide fire resistance periods in accordance with BS EN 1366-4: 2006 of up to 240 minutes for wall constructions.
2. This Certification is designed to demonstrate compliance of the product or the system specifically with TS40, if compliance is required to other regulatory or guidance documents there may be additional considerations or conflicts to be taken into account.
3. The product is approved on the basis of:
 - i) Initial type testing
 - ii) Audit testing at the frequency specified in TS40
 - iii) A design appraisal against TS40
 - iv) Inspection and surveillance of factory production control
4. The walls shall be at least 100mm thick and have at least the same fire rating as that required for the linear joint seal.
5. Block/masonry and concrete gap faces will be within the density min of 550 kg/m³, and gap faces will be free from loose or flaking material.
6. Flexible wall constructions with a thickness of min 100mm, consisting off 50mm steel stud, 50mm thick 100 kg/m³ density stone wool boards, and min 2 x layers 12.5mm gypsum board. The maximum height of the flexible wall seals is 1000mm.
7. The approval relates to ongoing production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Further information regarding the details contained in this data sheet may be obtained Den Braven Benelux B.V (Tel: +31 (0) 162 491000).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777, website: www.warringtoncertification.com)

CERTIFICATE No CF 5603

DEN BRAVEN BENELUX B.V.

Zwaluw[®] FP Acrylic Sealant - Approval Matrix

Wall Installations 100 mm thick (min.)							
Product Name			Zwaluw [®] FP Acrylic Sealant - wall joints				
Orientation	Joint Width mm	Min Sealant Depth mm	Backing Material	Gap Face Material	Integrity (mins)	Insulation (mins)	
Vertical	0-10	10	PE or PU Rod	AAC/AAC	240	180	
	0-20	13			240	120	
	0-30	16			240	120	
Horizontal	*0-10	10			240	180	
	*0-30	16			240	180	
Vertical	0-10	10		FW- AAC	180	120	
Horizontal	0-10	10			180	120	
Vertical	0-10	10		FW-FW	180	120	
Application Technique		Compress backing material into gap/joint to form a pocket of the correct depth for the sealant to finish flush with the surface of the wall, then infill with Zwaluw [®] FP Acrylic Sealant at the required depth. The seal is required to be formed on both faces/sides of the wall.					
Resistance to Smoke:		Not evaluated by this approval		Weather Capability:		Not evaluated by this approval	
Acoustic Rating:		Not evaluated by this approval		Movement Capability:		*Tested shear movement of 5%	

AAC- Autoclaved aerated concrete
 FW - Flexible Wall
 PU - Polyurethane
 PE - Polyethylene