



Green Draintm



SPECIFICATIONS PACK

CERTIFICATIONS

ACCREDITATIONS

PRODUCT TESTING





Waterless Trap Seal
For Floor Drains

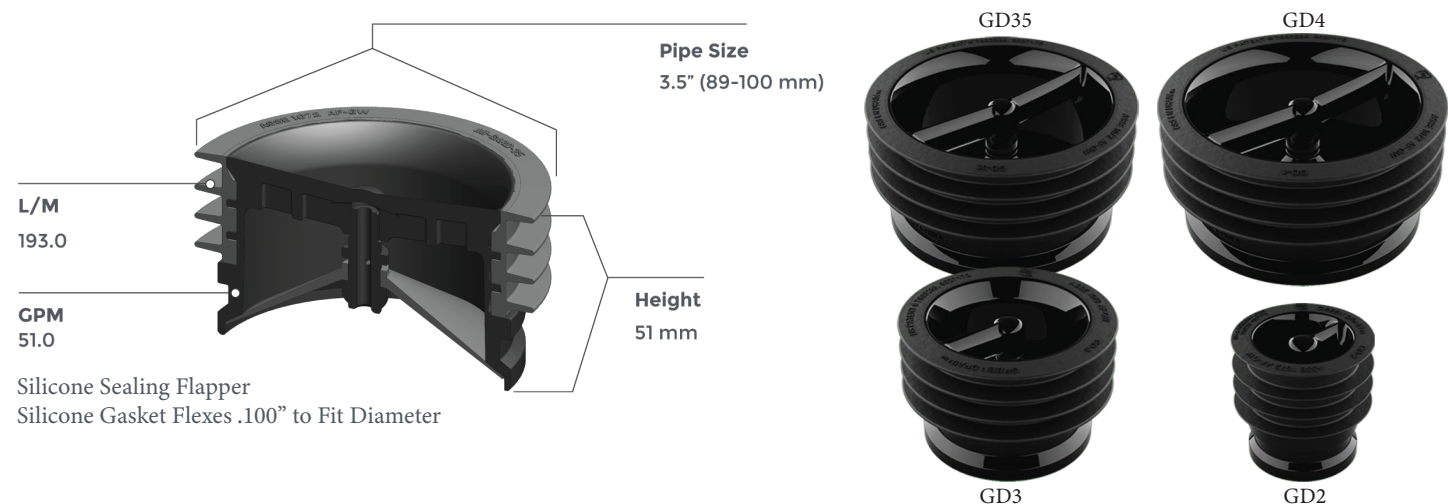
Specifications: Series inline floor drain trap seal with UV resistant ABS plastic frame, silicone rubber sealing flapper, and four flexible sealing ribs. Tested and certified to the ASSE 1072 Standard and listed with IAPMO and I.C.C. Specify connection size (2" (51MM), 3" (76mm), 3 1/2" (89mm) or 4" (102mm))

Function: Used in the outlet connections of floor drain bodies or the inside of floor drain strainers to seal the opening, preventing odors, sewer gases, insects, and cross-contamination of aerosolized pathogens caused by faulty traps and evaporation. Green Drain™ is comprised of four flexible sealing ribs ensuring a secure fit and simplistic installation into openings that vary in size. Green Drain™ will open to allow drainage and immediately close once the water has stopped flowing. Green Drain™ can be used in new construction or retrofitted into applications where trap primers have failed or never installed.

Prevents the following from entering up through floor drains:

- Odors and sewer/radon gases
- Insects and harmful pathogen spread

Model Number	Device Size		Flow Rate	
	"A" PIPE SIZE INCH (mm)	"B" HEIGHT INCH (mm)	GPM	L/M
GD2	2" (50mm - 58mm)	2" (51mm)	12.0	45.4
GD3	3" (75mm - 89mm)	2" (51mm)	34.0	128.7
GD35	3.5" (89mm - 100mm)	2" (51mm)	51.0	193.0
GD4	4" (102mm - 110mm)	2" (51mm)	73.0	276.3



This product is covered by one or more U.S. and foreign patents, including U.S. Patent No. 7900288 | U.S. Patent No. 9027172 | U.S. Patent No. 10724218



Green Drain[™]

Waterless Trap Seal
For Floor Drains

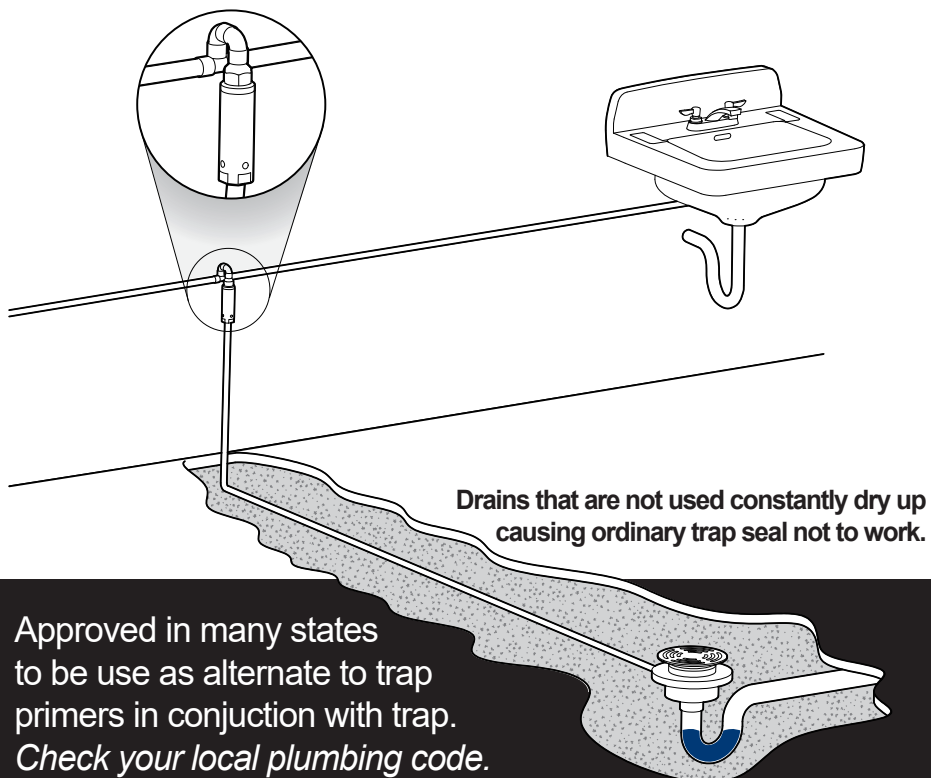
GREEN DRAIN WORKS WHEN TRAP PRIMERS FAIL

New Construction:

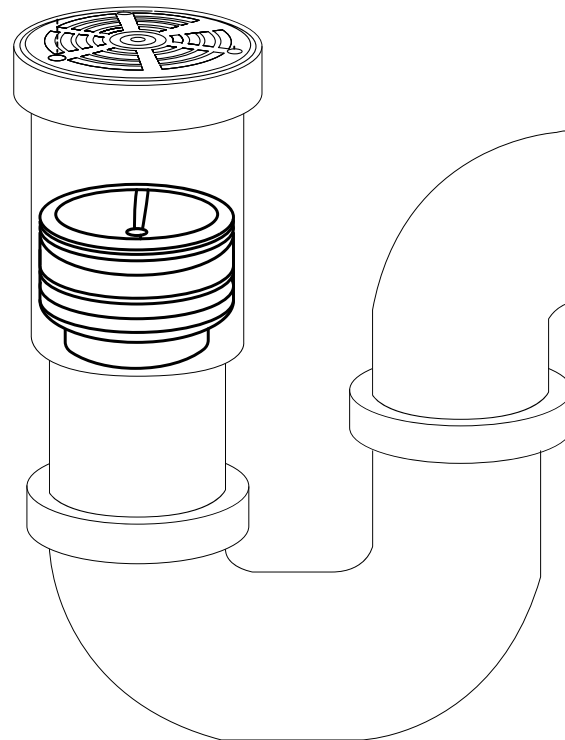
- Used in floor drains to provide added protection against escaping sewer gases.
- Eliminates the need to repair/replace trap primers when they fail.
- Avoids need for continuous dripping water and high utility bills caused by trap primers.

Retrofit:

- Used in situations where trap primers were never installed.
- Protect from common trap primer failures.
- Provides added protection even if water service is shut off.
- Simple to install without breaking walls or floors.

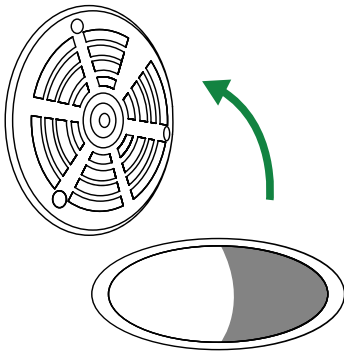


Complies with ASSE 1072-2007.
ICC-ES Certified to be used as alternate to trap primer.

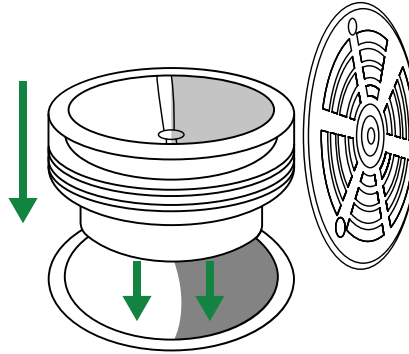


INSTALLATION GUIDE

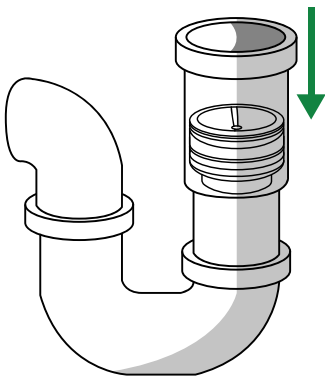
1 Remove Grate



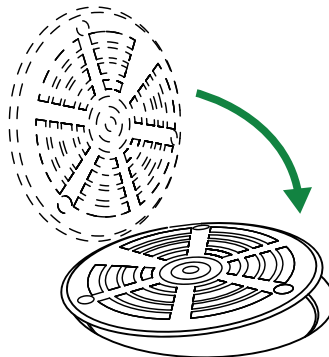
2 Insert Green Drain™



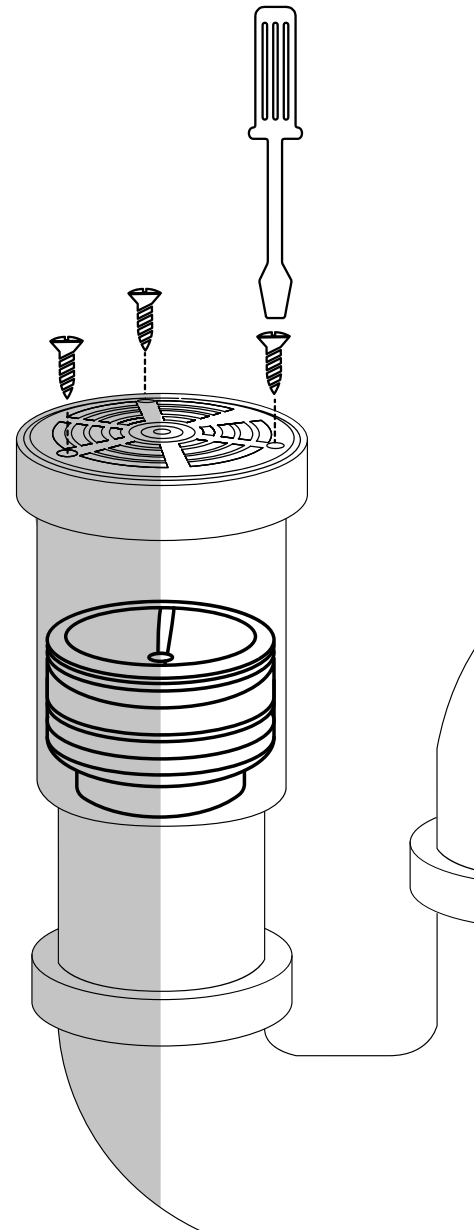
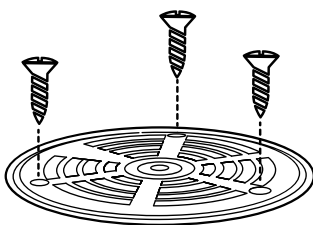
3 Recess 2" to 4" Into The Physical Pipe



4 Close Grate



5 Fasten Screws





PRODUCT SKU'S



Item #	GDSN LEVEL CATEGORY	PRODUCT DISCRIPTION	GTIN	GTIN-12 (U.P.C.)
GD2	EACH	WATERLESS TRAP SEAL FOR FLOOR DRAINS 2 INCH	00864833000114	864833000114
GD3	EACH	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3 INCH	00864833000121	864833000121
GD35	EACH	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3.5 INCH	00864833000138	864833000138
GD4	EACH	WATERLESS TRAP SEAL FOR FLOOR DRAINS 4 INCH	00864833000145	864833000145
IN_GD2	INNER PACK	WATERLESS TRAP SEAL FOR FLOOR DRAINS 2 INCH INNER PACK 24	00864833000107	864833000107
IN_GD3	INNER PACK	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3 INCH INNER PACK 24	00864833000152	864833000152
IN_GD35	INNER PACK	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3.5 INCH INNER PACK 24	00864833000169	864833000169
IN_GD4	INNER PACK	WATERLESS TRAP SEAL FOR FLOOR DRAINS 4 INCH INNER PACK 24	00864833000176	864833000176
MC_GD2	CASE	WATERLESS TRAP SEAL FOR FLOOR DRAINS 2 INCH MASTER PACK 96	00864833000183	864833000183
MC_GD3	CASE	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3 INCH MASTER PACK 96	00864833000190	864833000190
MC_GD35	CASE	WATERLESS TRAP SEAL FOR FLOOR DRAINS 3.5 INCH MASTER PACK 96	00860541000309	860541000309
MC_GD4	CASE	WATERLESS TRAP SEAL FOR FLOOR DRAINS 4 INCH MASTER PACK 96	00860541000316	860541000316



Report number: 1554-15003 | File number: 9301
Segment: Plumbing/Building | AREA: North America

The International Association of Plumbing and Mechanical Officials, or IAPMO, coordinates the development and adaptation of plumbing, mechanical, swimming pool and solar energy codes to meet the specific needs of individual jurisdictions both in the United States and abroad. IAPMO develops and publishes the Uniform Plumbing Code (UPC)

Products are in compliance with the following code(s):
Uniform Plumbing Code (UPC®) and National Plumbing Code of Canada.

Products are in compliance with the following standard(s):
ASSE 1072-2007



Certification No.: IAPMO-WM022837 -I01R00
Product: Floor Drain Trap Seal Protection Devices

IAPMO Oceana Pty Ltd is part of The IAPMO Group, an international plumbing industry based association that tests and certifies products and develops codes and standards that protect more than half the world's population. IAPMO Oceana certifies plumbing and drainage products to use the WaterMark™ symbol.

IAPMO Oceana is accredited by JAS-ANZ to conduct assessments leading to product certification and has also been approved to grant WaterMark licences.



HACCP | Certificate number: I-PE-891-GRE-RG-01
Segment: Food Safety | AREA: Global

Hazard Analysis and Critical Control Points, or HACCP is a systematic preventive approach to food safety from biological, chemical, and physical hazards in production processes that can cause the finished product to be unsafe and designs measures to reduce these risks to a safe level. In this manner, HACCP attempts to avoid hazards rather than attempting to inspect finished products for the effects of those hazards. The HACCP system can be used at all stages of a food chain, from food production and preparation processes including packaging, distribution, etc. The Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) require mandatory HACCP programs for juice and meat as an effective approach to food safety and protecting public health.





NSF | National Sanitation Foundation

Certificate #C0571796 - 01 | Certificate #C0571797 - 01

The NSF certification is your key to ensuring that the products you use meet strict standards for public health protection. Choosing a product certified by NSF lets you know the company complies with NSF's strict standards and procedures. From extensive product testing and material analyses to unannounced plant inspections, every aspect of a product's development is thoroughly evaluated before it can earn NSF certification



ICC-ES Report: PMG-1312 | Division 22 00 00-Plumbing Section: 22 13 16-Sanitary Waste and Vent Piping

In Compliance with the International Plumbing Code (IPC), International Residential Code (IRC), Uniform Plumbing Code (UPC), and National Plumbing Code of Canada (NSPC). In Compliance with ASSE 1072-2007, Performance Requirements for Barrier Type Floor Drain Trap Seal Protection Devices, American Society of Sanitary Engineering, CSA B79-2008 (R13), Floor, Area and Shower Drains, and Cleanouts for Residential Construction, ICC-ES LC1015, PMG Listing

Criteria for Elastomeric, Normally Closed, Floor Drain Evaporation Resistant Sealing System.

About the International Code Council

The International Code Council is the leading global source of model codes and standards and building safety solutions that include product evaluation, accreditation, technology, training, and certification. The Code Council's codes, standards, and solutions are used to ensure safe, affordable, and sustainable communities and buildings worldwide.

The International Code Council (ICC) family of solutions includes the ICC Evaluation Service (ICC-ES), S.K. Ghosh Associates, the International Accreditation Service (IAS), General Code, NTA Inc., and Alliance for National & Community Resilience (ANCR), which are dedicated to the construction of safe, sustainable, affordable and resilient structures.



The Safe Drinking Water and Toxic Enforcement Act of 1986

Proposition 65 regulations identify "no significant risk" levels for certain carcinogens.

Proposition 65 requires businesses to provide warnings to Californians about significant exposures to chemicals that cause cancer, birth defects or other reproductive harm.

These chemicals can be in the products that Californians purchase, in their homes or

workplaces, or that are released into the environment. By requiring that this information be provided, Proposition 65 enables Californians to make informed decisions about their exposures to these chemicals.



Report number: 1554-15003 | File number: 9301 Segment: Plumbing/Building | AREA: North America

Products are in compliance with the following code(s): Uniform Plumbing Code (UPC®) and National Plumbing Code of Canada.

The International Association of Plumbing and Mechanical Officials, or IAPMO, coordinates the development and adaptation of plumbing, mechanical, swimming pool and solar energy codes to meet the specific needs of individual jurisdictions both in the United States and abroad. IAPMO develops and publishes the Uniform Plumbing Code (UPC)





Green Drain™

Waterless Trap Seal
For Floor Drains



European Technical Assessment: ETA-18/0536
Segment: Plumbing/Building | AREA: Europe/EU/EEA

CE marking is a certification mark that indicates conformity with health, safety, and environmental protection standards for products sold within the European Economic Area (EEA). The CE marking is recognizable worldwide even to people who are not familiar with the European Economic Area (EEA). The CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EC directives.



Report number: VA 2.47/20696 | Segment: Plumbing/Building
AREA: Denmark

Approval of water supply and drainage systems (VA). The VA mark is recognized and respected in the industry. The VA approval includes an assessment of the suitability of water supply and drainage products as construction products. It is also an assessment of whether the products fulfil the Danish requirements defined in the Danish Building Regulation as well as related norms and guidelines. The VA mark is recognized and respected in the industry and a demand by professionals. The VA mark shows that the product fulfils the Danish norms for water supply and drainage systems and can be mounted in accordance with the requirements of the Building Regulation.



WaterMark

License No.: WM-022837
Segment: Plumbing/Building
AREA: Australia

WaterMark is a mandatory Australian national certification scheme required by the Plumbing Regulators and detailed in the Plumbing Code of Australia (PCA). The PCA prescribes the procedures and requirements of the WaterMark Certification Scheme (WMCS), therefore ensuring a uniform national approach to plumbing product certification, with industry and regulatory recognition throughout Australia.



Description: TRAP SEAL DEVICE | Product Name: GREEN DRAIN
Product File No: 20170008 | Trans ID: 2877090

DIVISION OF INDUSTRY SERVICES

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Administrative Code. This approval is valid until the end of January 2022.



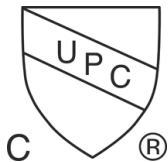
Green Drain™

IAPMO RESEARCH AND TESTING, INC.

5001 E. Philadelphia Street, Ontario, CA 91761 • Phone (909) 472-4100 • Fax (909) 472-4244 • www.iapmort.org



CERTIFICATE OF LISTING



IAPMO Research and Testing, Inc. is a product certification body which tests and inspects samples taken from the supplier's stock or from the market or a combination of both to verify compliance to the requirements of applicable codes and standards. This activity is coupled with periodic surveillance of the supplier's factory and warehouses as well as the assessment of the supplier's Quality Assurance System. This listing is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO Research and Testing, Inc. of the product acceptance by Authorities Having Jurisdiction.

Issued To:

GREEN DRAIN INC

17111 KENTON DRIVE #200B CORNELIUS, NC 28031 , United States

Product:

Floor Drain Trap Seal Protection Devices

Products are in compliance with the following code(s):

Uniform Plumbing Code (UPC®)
National Plumbing Code of Canada

Products are in compliance with the following standard(s)

ASSE 1072-2007

File Number: 9301

Effective Date: July 2019

Void After: July 2024*


Chairman, Product Certification Committee



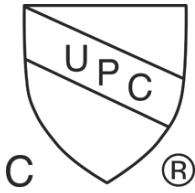

Chief Technical Service Officer

*This certificate is not evidence of current listing. To verify listing status, visit the IAPMO R&T Product Listing Directory at pld.iapmo.org

This listing period is based upon the last date of the month indicated on the Effective Date and Void After Date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of the Product Certification Committee, or any evidence of non-compliance with applicable codes and standards or of inferior workmanship, may be deemed sufficient cause for revocation of this listing. Production of or reference to this form for advertising purposes may be made only by specific written permission of IAPMO Research and Testing, Inc. Any alteration of this certificate could be grounds for revocation of the listing. This document shall be reproduced in its entirety.

IAPMO RESEARCH AND TESTING, INC.

CERTIFICATE OF LISTING



Issued To: GREEN DRAIN INC

Effective Date: July 2019

File Number: 9301

Product: Floor Drain Trap Seal Protection Devices

Void After: July 2024

This certificate is not evidence of current listing. To verify listing status, visit the IAPMO R&T Product Listing Directory at pld.iapmo.org

Identification:

Each device shall be permanently and legibly marked with the manufacturer's name or trademark and the application designation for the type of floor which the product could be installed (Any Floor Finish (AF), Any Floor, Grease Laden Waste (AF-GW), Shower Floor (SF), Concrete Floor (CF), Ceramic Tile Floor (CT), Wood Floor (WF)) Product shall also bear the cUPC® certification mark. Packaging shall bear the manufacturer's name or trademark, model number or description of the device, rating for type of floor, rated for grease-laden waste (if applicable), and the floor drain size.

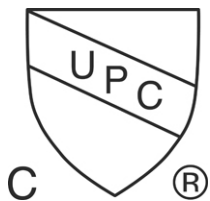
Characteristics:

Barrier type floor drain trap seal protection devices. Trap seal device shall not be used in lieu of a trap primer. Product to be installed with other IAPMO R&T listed fittings, in accordance with the manufacturer's instructions, and the requirements of the latest edition of the Uniform Plumbing Code and the National Plumbing Code of Canada.

Products listed on this certificate have been tested by an IAPMO R&T recognized laboratory. This recognition has been granted based upon the laboratory's compliance to the applicable requirements of ISO/IEC 17025.

IAPMO RESEARCH AND TESTING, INC.

CERTIFICATE OF LISTING



Issued To: GREEN DRAIN INC

Effective Date: July 2019

File Number: 9301

Product: Floor Drain Trap Seal Protection Devices

Void After: July 2024

This certificate is not evidence of current listing.To verify listing status, visit the IAPMO R&T Product Listing Directory at pld.iapmo.org

Models

Model Number	Description
GD-2	2" Drain
GD-3	3" Drain
GD-3.5	3.5" Drain
GD-4	4" Drain

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

Green Drain Inc.

Cornelius, NC

AS COMPLYING WITH NSF/ANSI 2 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



ISO/IEC 17065
Product Certification Body
#0216

Certification Program
Accredited by the
American National
Standards Institute



Certification Program
Accredited by the
Standards Council
of Canada

This certificate is the property of NSF International and must be returned upon request. This certificate remains valid as long as this client has products in Listing for the referenced standards. For the most current and complete Listing information, please access NSF's website (www.nsf.org).

March 3, 2021

Certificate# C0571796 - 01

Amy Wirges

Senior Managing Director, Product Certification

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

Green Drain Inc.

Facility: Guangdong Province, China

AS COMPLYING WITH NSF/ANSI 2 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



ISO/IEC 17065
Product Certification Body
#0216

Certification Program
Accredited by the
American National
Standards Institute



Certification Program
Accredited by the
Standards Council
of Canada

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March 3, 2021

Certificate# C0571797 - 01

Amy Wirges

Senior Managing Director, Product Certification

HACCP INTERNATIONAL

eliminate the hazard - reduce the risk



This is to certify that

Green Drain Inc

Floor Drain Trap Seals

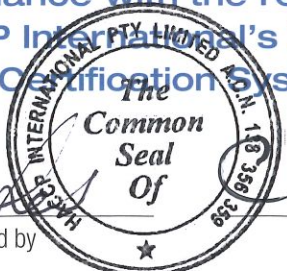

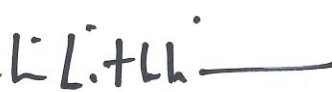
GD2
GD3
GD35
GD4
GD5-EU

are certified as suitable for use in floor drains in
facilities that operate a

HACCP based Food Safety Programme

noting the conditions of the certification statement

in accordance with the requirements of
HACCP International's Food Safety
Certification Systems


Issued by  Approved 

16 October 2020

Issue Date

05 September 2022

Expiry Date

This certificate belongs to HACCP International and must be returned upon demand. All products and services to which this certificate refers are evaluated prior to reissue. To verify certification, email certification@haccp-international.com
HACCP INTERNATIONAL: No. 3 Ridgewest Building, 1 Ridge Street, North Sydney, NSW 2060, Australia

Certificate Number
I-PE-891-GRE-RG-02

Certification Statement	I-PE-891-GRE-RG-02
Green Drain Inc	
Certificate Expiry Date	05 September 2022
Floor Drain Trap Seals Food Zone Classification: SSZ (Splash or Spill Zone) GD2 GD3 GD35 GD4 GD5-EU	
HACCP International certifies the products listed above as suitable for use in floor drains in food facilities that operate a HACCP based food safety programme.	
Licence Commencement	06 September 2020
Certificate Issue Date	16 October 2020 
HACCP International's evaluation and certification is strictly confined to matters of food safety or the operation of a HACCP based food safety programme. Whilst all reasonable care is taken by HACCP International in its evaluation of the product(s) or services(s) described herein, HACCP International does not guarantee that every food safety risk in every application has been identified. No guarantee is offered or implied in the issuing of this statement.	
Licence Agreement Green Drain Inc is licensed to use the HACCP International certification mark, in accordance with HACCP International's Certification Trade Mark Rules and Conditions in All Regions (Global) in respect of the products listed above, for a period of 24 months from the licence commencement date Green Drain Inc is in receipt of the HACCP International Pty Ltd Certification Trade Mark Rules and Conditions v3.0 and agrees to abide by the conditions therein.	
Licensee's Signature:	Date:

AMERICAS :
GAI Building
618 E South Street
Suite 500, Orlando
Florida 32801 USA
T: +1 407 992 6223

ASIA PACIFIC :
Unit 6601,
66/F The Centre
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Central, Hong Kong, SAR
T: +852 2824 8601

AUSTRALIA :
3/1 Ridge Steet,
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ABN 98 138 356 359
T: +61 2 9956 6911

EUROPE :
3 Aspen Road
Chartham Downs
Canterbury, Kent CT4 7TB
United Kingdom
T: +44 1227 731745

Test Report

Report No.: CTT2007011136EN

Page 1 of 1

Sample Received Date: Jul. 08, 2020
Completed Date: Jul. 10, 2020
Report Date: Jul. 10, 2020

The following merchandise was (were) submitted and identified on behalf of the applicant as:

Sample Name: Green Drain Trap Seal 2 inch/3 inch/3.5 inch/4 inch
Model No.: DS GD2/DS GD3/DS GD35/DS
P/O No.: GD4 DS-7433
Sample Quantity: 4
Manufacturer: Green Drain
Exported to: USA
Country of Origin: China

Test Result(s): Please refer to next page(s).

Test Requested and Conclusion(s):

No.	Standard and Requirement	Conclusion(s)
1	Client's requirements (Reference to California Proposition 65) - Lead	PASS
2	Client's requirements (Reference to California Proposition 65) - Phthalates	PASS

Signed for and on Behalf of CTT:

Hilary He

Hilary He
Technical Manager



This test report is issued by the company subject to its General Conditions of Services available on request and accessible at <http://www.cttlab.com/order/201905050400480820.pdf>. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. Unless otherwise stated the results shown in this report refer only to the sample(s) received. Without prior written permission of the company, this test report cannot be reproduced, except in full. Any inquiry about this report, please raise from the date of receipt of the report within 30 days, overdue will not be accept. Items marked with "n" means they are not accredited by CNAS (if with CNAS logo), "s" means the item of subcontractor. All or Part of items of this report are not in the accredited scope of CMA and cannot be as domestic social impartiality proof data.

Dongguan Consumer Testing
Technology Co., Ltd.

No.7, Gongye Beisi Road, Songshanhu High-Tech Industrial Development Park, Dongguan, Guangdong, China.
Tel: 86-0769-8898 9888 Fax: 86-0769-8898 8808 Hot Line: 400 6789 666
Website: <http://www.cttlab.com> Email: enquiry@cttlab.com



IAPMO R&T OCEANA

1040 Dandenong Road, Carnegie VIC 3163 AUSTRALIA



IAPMO R&T Oceana is a product certification body which inspects and arranges for the independent laboratory testing of samples taken from the manufacturer's stock or from the market or a combination of both, to verify compliance of the requirements of applicable Standards and Specifications. This activity is coupled with periodic surveillance of the manufacturer's factory and any major subcontractor's site/s as well as the assessment of the manufacturer's Quality Assurance System. This certification is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO R&T Oceana of the product acceptance by Authorities Having Jurisdiction.

WATERMARK LICENCE

WaterMark Level 2

IAPMO R&T Oceana hereby grants to:

Green Drain Inc

15275 Collier Blvd Suit 201-262, Naples, FL, USA, 34119

the right to use the WaterMark in accordance with the "Procedures for Certification of Plumbing and Drainage Products - WaterMark Technical Specification" and the Plumbing Code of Australia only in respect of the certified product as described in the attached WaterMark Schedule. The Licence is granted subject to the rules governing the Watermark Certification Scheme and the Terms and Conditions for WaterMark Certification.

Evaluated to:

WMTS-522:2018

Barrier type floor drain trap seal protection devices

Manufacturer:

Refer to licence holder

Licence No.: WM-022837

(Certificate of Certification No.: IAPMO-WM-022837-I01-R00)

Certified Date: 30 July 2018

Issue Date: 30 July 2018

Expiry Date: 29 July 2021

A handwritten signature in cursive script, reading "Russ Chaney".

Chief Executive Officer of the IAPMO Group

This WaterMark certification is for the period indicated herein and is void after the date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of IAPMO R&T Oceana, or any evidence of non-compliance with applicable Standards, Specifications or of inferior workmanship, may be deemed sufficient cause for revocation of this certification. Reproduction of or reference to this certificate for advertising purposes may be made only by specific written permission of IAPMO R&T Oceana. Any alteration of this certificate could be grounds for revocation of this certification.

**DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
P.O. BOX 30254
LANSING, MI 48909**

**CERTIFICATE OF ACCEPTABILITY
PRODUCT APPROVAL**

1657-PA

Issued by the Michigan State Construction Code Commission in accordance with authority granted under Section 21, 1972 P.A. 230, MCL 125.1521 on the recommendation of the Bureau of Construction Codes, Plumbing Division. This product was reviewed to the 2012 Michigan Plumbing Code.

MANUFACTURER:

Green Drain Inc

PRODUCT:

GD 102, GD 103, GD 103.5 and GD 104

MANUFACTURER DESIGNATION:

335 North Puente Street Suite F
Brea, California 92821

CONDITIONS OF USE AND INSTALLATION:

1. All requirements of the Michigan Plumbing Code shall be acceptable.
2. Shall be installed in accordance with the manufacturers installation instructions.
3. These devices shall not replace the need for a trap.
4. These devices are approved to take the place of a trap seal primer valve
5. This approval shall become void if and when the product no longer meets the requirements of the Michigan Plumbing Code.

THIS CERTIFICATE SHALL NOT BE USED FOR ADVERTISING PURPOSES.



By Direction of the Construction Code Commission

Irvin J. Poke, AIA, Director

Joseph T. Madziar - Chief, Plumbing Division

Effective Date: July 27, 2015



DIVISION OF INDUSTRY SERVICES
Plumbing Product Review
P.O. Box 7302
Madison, Wisconsin 53701-2658
TTY: Contact Through Relay

Scott Walker, Governor
Dave Ross, Secretary

January 12, 2017

GREEN DRAIN INCORPORATED
JUSTIN GRANATH
15275 COLLIER BLVD. 201-262
NAPLES FL 34119

Re: Description: TRAP SEAL DEVICE
Manufacturer: GREEN DRAIN INCORPORATED
Product Name: (trans id 2877090) THE GREEN DRAIN
Model Number(s): GD2, GD35, GD102, GD103, GD104 AND GD1035
Product File No: 20170008

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of January 2022.

This approval is contingent upon compliance with the following stipulation(s):

- These devices are not trap seal primers and shall not be used as such.
- These devices are not backwater valves and shall not be used as such.
- These devices shall maintain conformance to ASSE 1072.
- These devices shall be installed in accordance with the manufacturer's published instructions.
- These devices shall not be installed in areas subjected to less than atmospheric pressure.
- Each device shall be marked with the following:
 1. manufacturer's name or trademark; and
 2. UPC certification mark.

Packaging shall be marked with the following:

- a. manufacturer's name or trademark;
- b. model number or description of device;
- c. rating for type of floor;
- d. rating for grease laden wastes (if applicable); and
- e. floor drain size.

MODEL	INCHES	FLOW RATE (GPM)
GD2	2	12.0
GD35	3½	51.0
GD102	2	12.0
GD103	3	34.0
GD104	4	73.0
GD1035	3½	51.0



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
LANSING

SHELLY EDGERTON
DIRECTOR

BUREAU OF CONSTRUCTION CODES

**CERTIFICATE OF ACCEPTABILITY
PRODUCT APPROVAL**

1657-PA

Issued by the Michigan State Construction Code Commission in accordance with authority granted under Section 21, 1972 P.A. 230, MCL 125.1521 on the recommendation of the Bureau of Construction Codes, Plumbing Division. This product was reviewed to the 2012 Michigan Plumbing Code.

MANUFACTURER:

Green Drain Inc

PRODUCT:

One Way Drain Trap Seal model numbers GD 2, GD 3, GD 3.5 and GD 4

MANUFACTURER DESIGNATION:

15275 Collier Blvd. 201-262
Naples, FL 34119

CONDITIONS OF USE AND INSTALLATION:

1. All requirements of the Michigan Plumbing Code shall be acceptable.
2. Shall be installed in accordance with the manufacturer's installation instructions.
3. These devices shall not replace the need for a trap.
4. These devices are approved to take the place of a trap seal primer valve
5. This approval shall become void if and when the product no longer meets the requirements of the Michigan Plumbing Code.

THIS CERTIFICATE SHALL NOT BE USED FOR ADVERTISING PURPOSES.

Effective Date: July 27, 2015

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EVALUATION SUBJECT:

FLOOR DRAIN TRAP SEAL PROTECTION DEVICES

DIVISION:

22 00 00—PLUMBING

SECTION:

22 13 16—SANITARY WASTE AND VENT PIPING

Report Holder:

GREEN DRAIN, INC.

335 N. PUENTE STREET
BREA, CA 92821



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ICC-ES PMG Listing**PMG-1312**

Effective Date: February 2016

This listing is subject to re-examination in one year.

www.icc-es-pmg.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

CSI: DIVISION: 22 00 00—PLUMBING
Section: 22 13 16—Sanitary Waste and Vent Piping

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Floor Drain Trap Seal Protection Devices

Listee: Green Drain Inc.
335 N. Puente Street
Brea, CA 92821
www.greendrains.com

Compliance with the following codes:

2015, 2012, 2009 and 2006 *International Plumbing Code*® (IPC)
2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)
2015, 2012, 2009 and 2006 *Uniform Plumbing Code*® (UPC)*
2010 and 2005 *National Plumbing Code of Canada*® **

*Uniform Plumbing Code is a copyrighted publication of the International Association of Plumbing and Mechanical Officials

**National Plumbing Code of Canada is a copyrighted publication of National Research Council Canada

Compliance with the following standards:

ASSE 1072-2007, Performance Requirements for Barrier Type Floor Drain Trap Seal Protection Devices, American Society of Sanitary Engineering
CSA B79-2008 (R13), Floor, Area and Shower Drains, and Cleanouts for Residential Construction
ICC-ES LC1015, PMG Listing Criteria for Elastomeric, Normally Closed, Floor Drain Evaporation Resistant Sealing System (Oct 2010)

Identification:

The product and/or package must bear the manufacturer's name, the model number and the ICC-ES PMG listing mark.

Installation:

The Green Drain Inc. trap primer alternates are to be installed in accordance with the manufacturer's instructions and the applicable code.

Models:

<u>MODEL</u>	<u>Device SIZE</u>		<u>FLOW RATE</u>	
	<u>Inches</u>	<u>mm DN</u>	<u>GPM</u>	<u>L/M</u>
GD102	2	40	12.0	45.4
GD103	3	50	34.0	128.7
GD1035	3½	80	51.0	193.0
GD104	4	100	73.0	276.3

Conditions of listing:

1. The Green Drain Inc.devices, recognized by this listing, are intended to serve as alternates to the code- required trap primer. They must serve a functioning trap.
2. The plumbing systems must be installed in accordance with the applicable codes.
3. The "Device" must be accessible.
4. The Green Drain Inc.trap primer alternates are manufactured in Xiamen, China under a quality control program with annual surveillance inspections.





TEST REPORT

5001 East Philadelphia Street
Ontario, California - USA 91761-2816

Ph: 909.472.4100 | Fax: 909.472.4243
<http://www.iapmorll.org>

Report Number: 1554-15003

Report Issued: June 24, 2015 **Project No.:** 24772

Client: Green Drain, Inc.
335 North Puente Street # F
Brea, CA 92821 **Contact:** Ben Wilson

Source of Samples: The samples were shipped to IAPMO R&T Lab from Green Drain, Inc., and received in good condition on April 02, 2015, and May 18, 2015.

Date of Testing: May 18, 2015 to June 23, 2015.

Sample Description: Trap Seal Devices
Models: *GD-102 (2")
GD-103 (3")
GD-103-5 (3.5")
*GD-104 (4")
*** = tested samples.

Scope of Testing: The purpose of the testing was to determine whether the samples of the Trap Seal Devices met the applicable requirements of ASSE Standard # 1072-2007, "Barrier Type Floor Drain Trap Seal Protection Devices".

Conclusion: The samples tested of the Trap Seal Devices from Green Drain, Inc., models as shown above, complied with the applicable requirements of ASSE 1072-2007.

By our signatures below, we certify that all the testing and sample preparation for this report was performed under continuous, direct supervision of IAPMO R&T Lab, unless otherwise stated.

Tested By,

Reviewed by,

Frank Lopez, Test Technician

Sean Vuu, P.E., Specialty Projects Manager

All testing and sample preparation for this report was performed under the continuous, direct supervision of IAPMO R&T Lab, unless otherwise stated. The observations, test results and conclusions in this report apply only to the specific samples tested and are not indicative of the quality or performance of similar or identical products. Only the Client shown above is authorized to copy or distribute the report, and then only in its entirety. Any use of the IAPMO R&T Lab name for the sale or advertisement of the tested material, product or service must first be approved in writing by IAPMO R&T Lab.

Primary Standards: ASSE Standard # 1072-2007 / Section tested:

1. General
2. Test Specimens
3. Performance Requirements and Compliance Testing
4. Detailed Requirements

Test Results: All tests and evaluations were conducted per the written procedures specified in the ASSE Standard # 1072-2007.

ASSE Standard # 1072-2007:

1.2 Scope:

1.2.1 Description – FOLLOWED

The devices consisted of a membrane that allowed the flow of drainage to enter the plumbing drainage system. The devices closed when there was no flow.

1.2.2 Size – COMPLIED

The devices were sized according to the outlet sizes of the floor drains (2", 3", 3.5" and 4").

1.2.3 Flow Capacity – COMPLIED

The devices permitted the flows of drainage as stipulated in Table 1 of this standard (refer to section 3.1).

1.2.4 Rating – FOLLOWED

The devices were rated for the type of floor or floor finish in which the floor drain can be installed "AF-GW".

1.3 Construction – COMPLIED

1.3.1 Function: the devices opened when there is a maximum of 4 oz of water on the inlet to the device, and closed when there was no flow of wastewater into the devices (refer to section 3.4).

1.3.2 Evaporation: the devices passed the evaporation test described in Section 3.2 of this standard.

1.3.3 Obstruction of Flow: to prevent the collection of waste solids, the opening passageways in the device did not have any sharp edges or protrusions which would obstruct the flow to the drainage system or result in stoppages. The devices did not obstruct access to the interior of the floor drain trap.

1.3.4 Connections Within Floor Drain: the device connected within a floor drain that conformed to ANSI/ASME A112.6.3.

2.0 Test Specimens:

2.1 Sample Submitted – FOLLOWED

6 devices of each size and model were submitted by the manufacturer.

2.2 Samples Tested – FOLLOWED

1 sample was selected to be tested in order to sections 3.1 through 3.7 and additional 1 sample was selected to be tested to section 3.2, and another 1 sample was selected to be tested to section 3.8 of this standard.

2.3 Drawings – FOLLOWED

Assembly drawings, installation drawings, and other data which were necessary to enable the testing agency to determine compliance with this standard were accompanied assemblies when submitted for examination and performance testing under this standard.

2.4 Rejections – FOLLOWED

Failure of 1 device being tested shall be cause for rejection of that type or model and size.

3.0 Performance Requirements and Compliance Testing

3.1 Flow Test – COMPLIED

When tested to section 3.1.2 of this standard, the trap seals were able to flow at 12 gpm (2") and 73 gpm (4") for 10 minutes without overflowing the open sides of the pans.

3.2 Evaporation Test – COMPLIED

When tested to section 3.2.2 of this standard for 96 hours at 100°F, 20% relative humidity, the weight loss in cylinder A: 70.41g (2"), 269.9g (4"), cylinder B: 2.64g (2"; 3.75% of cylinder A), 7.8g (4"; 2.89% of cylinder A), cylinder C: 1.47 g (2"), 3.3g (4").

3.3 Trap Seal Interference Test – COMPLIED

When tested to section 3.3.2 of this standard, there was no protrusion of the device into the floor drain trap seal.

3.4 Opening Test – COMPLIED

When tested to section 3.4.2 of this standard, the devices started to open at: 1.31g (2"), and 2.2g (4").

3.5 Dirt and Debris Test – COMPLIED

When tested to section 3.5.2 of this standard, and subjected to section 3.2 for 96 hours, the weight loss in cylinder A: 75.42g (2"), 253.3g (4"), cylinder B: 2.53g (2"; 3.35% of cylinder A), 8.4g (4"; 3.32% of cylinder A), cylinder C: 1.44g (2"), 3.0g (4").

3.6 Floor Wax Test – COMPLIED

When tested to section 3.6.2 of this standard at 1 GPM, the devices did not overflow the floor drain top grates.

3.7 Grease Test – COMPLIED

When tested to section 3.7.2 of this standard at 1 GPM, the devices did not overflow the floor drain top grates.

3.8 Life Cycle Test – COMPLIED

After tested to section 3.8.2 of this standard, and subjected to section 3.2 for 96 hours, the weight loss in cylinder A: 77.59g (2”), 290g (4”), cylinder B: 3.2g (2”; 4.12% of cylinder A), 9.7g (4”; 3.34% of cylinder A), cylinder C: 1.73 g (2”), 4.2g (4”).

3.9 Physical Test of Membrane Material – COMPLIED (refer to CRT report no.: 19741-S1).

4.1 Materials - COMPLIED

4.1.1 Dissimilar Metals – NOT APPLICABLE (no metal).

4.1.2 Internal Metallic Parts – NOT APPLICABLE (no metal).

4.1.3 Non-metallic Parts - COMPLIED

Nonmetallic part (rubber & plastic) was designed for the rated operating temperature of the device without change in physical characteristics that would prevent full compliance with all requirements of this standard.

4.2.1 Marking of Devices – COMPLIED

Each device had the following information marked (molded), which is visible:

- a) Trademark “GREEN DRAIN” (per drawings).
- b) Application designation “AF-GW”.

4.2.2 Packaging - COMPLIED

Each device had the following information marked (printed) on the packaging:

- a) Manufacturer’s name “The Green Drain”
- b) Model number
- c) Rating for type of floor “AF-GW”
- d) Floor drain size.

4.3 Installation Instruction - COMPLIED

Instruction for installation of the device “press to install in drain outlet” was printed on the package.



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TEST REPORT

PAGE 1 OF 2

FOR: IAPMO R & T Lab
5001 E. Philadelphia Street
Ontario, CA 91761
Tel: (909) 472-4143 / Fax: (909) 472-4195
ATTN: Mr. Sean B. Vuu

LWR NO.: 19741-S1 DATE: June 22, 2015

BACKGROUND:

The client submitted one (1) membrane material for testing to ASSE 1072-07 (Table 3). The sample arrived on 05/21/2015 via customer-supplied courier. Visual inspection was performed on 05/21/2015 and no product defects were noted. Testing in accordance with customer-supplied P.O. # 7339 received on 04/02/2015. The following additional information is provided:

CRT order entry log date: 05/21/2015 / **Report due date:** 06/22/2015

Sample ID: Membrane material (silicone) IAPMO Project # 24772

PREPARATION:

Set-up, machining & die punching – CRT methods / ASTM methods

Chemical set-up & preparation – ASSE 1072-07 / CRT methods

Conditioning – ASTM D 618-13, 40 hours in a standard laboratory environment

SPECIFICATION:

ASSE 1072-07(2013) Barrier Type Floor Drain Trap Seal Protection Devices (Section 3.9 / Table-3 Physical Test of Membrane Material):

TEST PROCEDURES:

Ozone resistance – ASTM D 1149-07, ASTM D 518 (method-B) at 104°F (±2°F) for 100h at 150pphm

Water absorption – ASTM D 471-98 for 48 h 158°F (±2°F)

Chemical Reagents – ASTM D 543-06 (72h at 74 ± 3.6°F)

Weather-o-meter (500h) – ASTM G 154-12a (4h Q.U.V. @ 60°C / 4h Condensation @ 50°C), U.V.B. 313 Bulbs

Tensile strength & Elongation – ASTM D 412-06a (Dumb-bell-C)

Split Tear strength – ASTM D 624-00 (Die-C)

Non-brittle Brittleness – ASTM D 2137-11 (3 minutes at -40°F (±2°F))

TEST RESULTS:

The results of testing are shown in the attached data table.

CONCLUSION:

Based on the results obtained, this sample meets the minimum requirements for section 3.9 as described in ASSE 1072-07 (Table-3)...**Complies**

Specimen Retain Bin: BB (30 day hold only unless otherwise specified)

CRT LABORATORIES, INC.

IAPMO R&T ISO 9001:2008 Certified – Registered / ISO-IEC 17025:2005 Accredited

Ken A. Le Jeune
CEO / Laboratory Director

Raul Gonzalez
Laboratory Technician

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TEST REPORT

PAGE 2 OF 2

FOR: IAPMO R & T Lab
5001 E. Philadelphia Street
Ontario, CA 91761
Tel: (909) 472-4143 / Fax: (909) 472-4195
ATTN: Mr. Sean B. Vuu

LWR NO.: 19741-S1 DATE: June 22, 2015

TABLE 1

SAMPLE ID: Membrane material (silicone)

TESTING: Conformance to ASSE 1072-07 (Physical Test of Membrane Material)

IAPMO project #: 24772

RESULTS FROM TABLE-3 REQUIREMENTS

ASTM Method	Determination	Test values	Requirements
D 1149-07	(Method-B) Ozone resistance (visual) 150pphm / 40°C / 100h	No cracking or crazing / Pass	No cracking and/or crazing
D 471-06	Water absorption (%)	+ 0.36% / Pass	+ 20%, maximum
D 543-06	Chemical resistance (%) Sulfuric acid 1% (72h @ 23°C)	+ 0.17% / Pass	10%, maximum
D 543-06	Chemical resistance (%) Sodium hydroxide 1% (72h @ 23°C)	+ 0.21% / Pass	10%, maximum
G 154-12a	UV Resistance	Specimens were exposed for 500 h using UVB 313 lamps	
D 412-06a	Initial Tensile strength (Psi)	853	N/A
D 412-06a	Initial Elongation (%)	656	N/A
D 412-06a	Change in Tensile strength (Psi)	(726) -17.49% / Pass	-50%, maximum
D 412-06a	Change in elongation (%)	(552) -15.85% / Pass	-50%, maximum
D 624-00	Split Tear strength at 23°C (kn/m)	23.38 / Pass	0.25 kn/m, minimum
D 2137-11	Brittleness @ -40°C	No brittleness / Pass	No brittleness

...Complies

Product Evaluation

Green Drain Inc Floor drain trap seals



Project ID: GRE01

Evaluation Date: August 2018

Hazard Analysis: Karen Constable

Review and Certification Decision: HACCP Australia Technical Panel, Chairperson Martin Stone

Executive Summary

HACCP Australia operates a certification scheme for equipment, materials and services used within the food industry. Certification is offered to suppliers of equipment or materials that make a contribution to food safety and can be used by the food industry without risking the safety of food or the integrity of a food facility's HACCP-based food safety management system.

Green Drain's floor drain trap seals (various sizes) were evaluated for the purposes of product certification by HACCP Australia by performing a risk-based hazard analysis based on the principles of HACCP as described in the Codex Alimentarius of the World Health Organisation. The *HACCP International Food Safety Standard FOOD SAFE PRODUCTS and SERVICES for FOOD BUSINESSES* describes this process and defines requirements for certification.

Evaluation of products and services is strictly confined to characteristics which could have an impact on food safety or on the proper operation of a HACCP based food safety programme. The evaluation does not identify risks to occupational health, legislative or regulatory requirements or quality issues except where such risks could have an impact on food safety. The results of the hazard analysis can be found in Table 1 of this report.

Green Drain's floor drain trap seals are appropriate for use in food facilities that operate in accordance with a HACCP based Food Safety Programme, within the splash and spill zone¹ (SSZ) of the facility.

All such equipment is to be installed, cleaned and replaced in accordance with the manufacturer's instructions and recommendations.

¹ For definitions of food zones, please refer to Appendix B.

HAZARD ANALYSIS - SUMMARY

Table 1. Hazard Analysis based on HACCP Australia (HA) Criteria; identification of hazards to food safety and means of controlling these hazards. An explanation of the methodology can be found in Appendix A.

HA CRITERIA	HAZARD + CONTROL MEASURES	HAZARDS ADEQUATELY CONTROLLED?
Toxicity	No hazards to food safety from materials of composition.	✓
Ease of cleaning	The trap seals are self-cleaning in the waste-water contact areas. The silicon membrane is very high friction and not expected to collect any debris or grime. The floor drain trap seals are designed and priced to be cheaply replaceable which also prevents buildup of materials that could prove to be a food safety hazard in a food handling facility.	✓
Consequence of error in application	If used in the incorrect application, no direct hazards to food safety would arise.	✓
Consequence of error in use	No hazards identified.	✓
General Food Safety Issues	The floor drain trap seals provide benefits to food safety, notably from preventing drain-breeding flying insects to gain access to drain areas.	✓
Batch / Process Controls	The floor drain trap seals are designed and priced to be cheaply replaceable so in the event of a breakdown or failure of the seal it would be easy to rectify.	✓
Manufacturer's Specifications and Controls	Inconsistent manufacture of the drain seals is unlikely to give rise to hazards to food safety.	✓
Operating Instructions - Packaging Claims	Claims made about the products have been reviewed. Claims have either been verified as being appropriate with respect to food safety and food industry usage and/or identified as being not relevant to the scope of this evaluation.	✓
Direct Contamination of Food	Under intended usage and even under an error scenario, this product is unlikely to result in direct contamination of food; no hazards identified	✓

Suitability for the food industry

The products are suitable for use in the food industry and free from hazards to food safety.

Conclusion and Recommendations

Certification is recommended.

Appendix A

Hazard Analysis Explanation

Hazard Analysis is a system of collecting and evaluating information on food safety hazards associated with the product/service under consideration. From this analysis, the significance of the hazard is determined; those that are deemed to be significant can be addressed in the product evaluation.

Definitions

HA Criteria:

These are the nine standard criteria used by HACCP Australia (HA) in the evaluation of every product and service. Refer to *HACCP International Food Safety Standard FOOD SAFE PRODUCTS and SERVICES for FOOD BUSINESSES*.

Hazard:

A hazard is a biological, chemical or physical agent that may cause a food to be unsafe for consumption. The severity and likelihood of each hazard are plotted on a Significance Matrix which is used to determine if the hazard is significant and whether or not it should be considered as a Critical Control Point.

Control Measures:

Brief summary of how the potential hazard is controlled to minimise the risk to food safety.

Appendix B

Food Zone Definitions

Food Zone	<p>The food zone is any area of a <i>food handling facility</i>, or any part of a food handling device that could come into contact with <i>food</i> in the <i>food product stream</i>. The food zone includes areas from which splashed or spilled food could drip or fall to rejoin the product stream.</p> <p>Equipment and materials that are suitable for the food zone may be designated as <i>primary contact items</i> or <i>secondary contact items</i>.</p>
Food Product Stream	<p>A food product stream is a <i>food</i> product of a liquid or particulate nature, which is moving continuously through a pipeline or aperture, or along a conveyor, or is otherwise part of a food processing or food preparation process. Food in the food product stream is food which is intended to be consumed in the future.</p>
Non-food Zone (NFZ)	<p>Non-food zones are areas of a <i>food handling facility</i> or parts of a <i>food handling device</i> that do not come into direct contact with food of any kind, including food debris, during expected conditions.</p>
Primary Contact Items (FZP)	<p>Primary contact items are devices, materials or equipment which come into contact with <i>food</i> in the <i>food product stream</i> during expected conditions of use.</p>
Secondary Contact Items (FZS)	<p>Secondary contact items are devices, materials, equipment or surfaces in the <i>food zone</i> which come into contact with <i>primary contact items</i> during ordinary expected use. To be classified as a secondary contact item, the item would be expected to touch the <i>food contact surface/s</i> of a primary contact item. Some primary contact items have both food contact surfaces and non-food contact surfaces, such as the inside and the outside of an ice machine.</p>
Splash and Spill Zone (SSZ)	<p>The splash/spill zone is any area in a <i>food handling facility</i>, or any part of a <i>food handling device</i>, which could come into contact with splashed or spilled <i>food</i> that cannot re-enter the <i>food product stream</i>.</p>

HACCP Australia's evaluation and certification is strictly confined to matters of food safety or the operation of a HACCP based food safety programme. Whilst all reasonable care is taken by HACCP Australia in its evaluation of the product(s) or services(s) described herein, HACCP Australia does not guarantee that every food safety risk in every application has been identified. No guarantee is offered or implied in the issuing of this statement.



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Authorised and notified according
to Article 29 of the Regulation (EU)
No 305/2011 of the European
Parliament and of the Council of 9
March 2011

MEMBER OF EOTA



European Technical Assessment ETA-18/0536 of 2019/12/13

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

GREEN DRAIN GD2, GD3, GD35, GD4 and GD5

Product family to which the above construction product belongs:

Waterless odour trap for floor drains

Manufacturer:

Green Drain Europe
Birk Centerpark 40
DK-7400 Herning
Tel. +45 5353 9595
www.greendrains.eu

Manufacturing plant:

Green Drains Inc.
15275 Collier Blvd.
Suite 201-262
Naples, FL 34119
USA

This European Technical Assessment contains:

6 pages including 1 annex which form an integral part of the document

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:

European Assessment Document (EAD) no. EAD 180020-00-0704 for Waterless odour trap for floor drains

This version replaces:

The ETA with the same number issued on 2018-08-07

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

ETA based on this EAD, but are to be regarded only as a means for expressing the expected economically reasonable working life of the product.

1 Technical description of product and intended use

Technical description of the product

Green Drain Europe's GREEN DRAIN Waterless odour trap for floor drains.

The waterless odour trap for floor drains consists of a UV-resistant ABS frame, a silicone based sealing collar/membrane and various flexible sealing flanges.

Green Drain Europe's GREEN DRAIN Waterless odour trap for floor drains, comes in 5 different sizes GD2 (50-58mm), GD3 (75-85mm), GD35 (89-100mm) and GD4 (102-110mm) and GD5 (120-135mm).

The different sizes have different drainage capacities. All with height 51 mm to fit into the floor drains.

The waterless floor drain prevents the passage of odours and gasses from the sewerage system without the use of a water-filled trap.

See annex A for drawings

2 Specification of the intended use in accordance with the applicable EAD

The waterless odour trap for floor drains allows the drainage water to flow to the sewerage system while preventing passage of odour and gasses from the sewerage system.

The provisions made in this European Technical Assessment are based on an assumed working life of the waterless odor trap of at least 25 years, when installed in the works.

When assessing the product, the intended use as foreseen by the manufacturer shall be taken into account. The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by EOTA, when drafting this EAD nor by the technical Assessment Body issuing an

3 Performance of the product and references to the methods used for its assessment

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR2)	
Reaction to fire	No performance assessed
3.3 Hygiene, health and the environment (BWR3)	
Air/Odour tightness	Odour tight >400pa
Self-cleaning ability	Selfcleaning.
Effectiveness	
Access for cleaning	Cleanable.
Water through the grating	GD3, GD35, GD4 and GD5: >1,4l/s GD2: >0,8l/s
Heat Resistance – Thermal behavior	Class A.
Mechanical resistance at negative air pressure	Odour tight >400pa
Pull-out resistance from floor drain	GD2, GD3, GD35, GD4 and GD5, can withstand an extraction/pull-out force of 5kn, in both stainless-steel gullies and PP gullies.
3.4 Sustainable use of natural resources (BWR7)	No performance assessed

4 Attestation and verification of constancy of performance (AVCP)

4.1 AVCP system

According to the decision 99/472/EC of the European Commission, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 4.

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking

Issued in Copenhagen on 2019-12-13 by



Thomas Bruun
Managing Director, ETA-Danmark

Annex A: Description of the product



Outer watertight membrane

Gully with trap

Flexible silicone membrane

GREEN DRAIN waterless odour trap for floor drains	Annex A of European Technical Assessment ETA-18/0536
Description of the product	

May 6, 2016
Hohto Shoji Co., Ltd

Green Drain Product Test Report

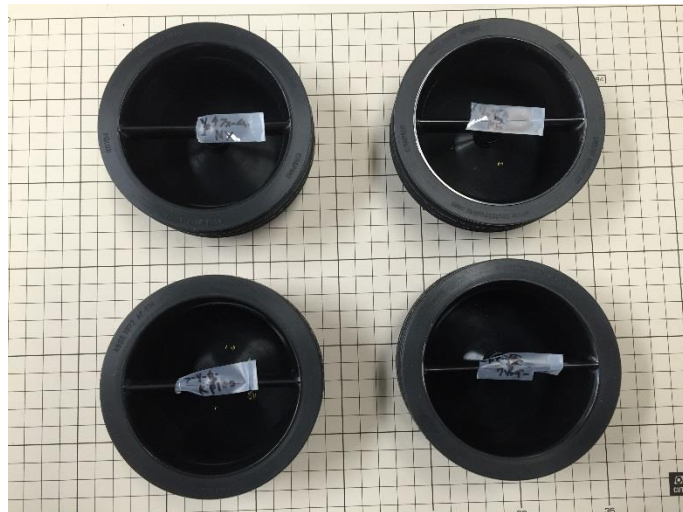
Test House: Tokyo Metropolitan Industrial Technology Research Institute

Testing Method and Results

1. Chemical Resistance Test

Method: Soak Green Drains in four different detergents commonly used by Ikari for 24 hours at 23 degree Celsius (23 ± 2 degree Celsius , humidity $50 \pm 5\%$)

- 1) Rich Foam NX (alkaline cleaner: dilution rate 5 times)
- 2) Rich Foam MF (sodium hypochlorite, alkaline cleaner: dilution rate 5 times)
- 3) Bleaker KT100 (fungicide, alkaline cleaner: dilution rate Undiluted)
- 4) Yudegama Cleaner (acidic cleaner: dilution rate 3 times)



Test Result

All test samples were rinsed with clean water and dried with paper towels then left for 24 hours for natural dry before inspection.

Mass Change Ratio (weight): +0.21%

Visual Inspection: No change in color nor shape. No sign of corrosion

Tactile Impression: No change

Harness Measurement (silicon skirt): No change

2. Thermal Shock Test

Method: Keep Green Drains in thermostat chambers at temperature peak -10 degree Celsius to 100 degree Celsius (process repeated for five times: MIL-STD-202G)



Test Result

Visual Inspection: No change in color nor shape. No sign of corrosion

Tactile Impression: No change

Harness Measurement (silicon skirt): No change



FREQUENTLY ASKED QUESTIONS



What is the GREEN DRAIN™?

- The GREEN DRAIN™ is an environmentally friendly water free trap seal, which can be installed in basically all floor drains without the use of tools.

Why is GREEN DRAIN™ self-cleaning?

- GREEN DRAIN™ allows water to rinse the membrane and has no “labyrinth” opposite to normal trap seals that collects dirt, hair, and grease.

Where can I install GREEN DRAIN™?

- GREEN DRAIN™ can be installed in almost all types of floor drains. In new buildings as well as older buildings. Private houses as well as industrial use with only minimal limitation. Examples of common places: Factories, Schools/Universities, Arenas/Sports Venues, Office Buildings, Hospitals, Restaurants, Hotels, Food Production Factories, Ships, RV's, Public Buildings etc.

Which sizes do GREEN DRAIN™ come in?

- GREEN DRAIN™ is available in 6 different sizes, which are flexible and cover different measurements as shown below. GREEN DRAIN™ fits in almost all floor drains with diameters according to following intervals:

<u>Model</u>	<u>Size</u>
GD15 (1.5")	36-47 mm
GD2 (2")	50-58 mm
GD3 (3")	75-85 mm
GD35 (3.5")	89-100 mm
GD4 (4")	102-110 mm
GD5 (5")	120-135 mm (Available in Europe)

Is GREEN DRAIN™ approved and tested by accredited institutions?

GREEN DRAIN has been approved or tested by the following institutions – among others:

- Danish Technological Institute – DS/EN 1253-1
- ETA Denmark – VA approval
- CE
- IAPMO R&T- CUPC (American and Canadian national standards)
- ICC/IPC/IRC
- SCC Accredited
- ANSI
- ASSE-1072 Standards
- IAPMO OCEANA- Watermark
- JAS-ANZ
- HACCP (Hazard Analysis & Critical Care Points) - Food Safety
- NSF (Food Safety)
- Prop 65 Compliant
- Test House: Tokyo Metropolitan Industrial Technology Research Institute

Is GREEN DRAIN™ easy to install?

- GREEN DRAIN can be installed without the use of tools after the grating has been removed. Just push the GREEN DRAIN into the pipe and make sure it fits snug. For maximum flow of liquids passing down the drain, simply recess The Green Drain 2-3 inches within the drainpipe.

Can I install GREEN DRAIN™ in a shower drain?

- YES, GREEN DRAIN™ can be installed in a shower drain. We recommend recessing the unit 4-6 inches into the physical pipe rather than the drain hub or housing. Recessing the unit assists with greater flow of liquids passing down the drain.

Can I install GREEN DRAIN™ into a bathtub drain?

- Technically YES, however, most bathtubs are manufactured with a drain plug that allows the user to control the drainage. We do not recommend replacing the drain plug with a Green Drain™.

How does GREEN DRAIN™ work?

- GREEN DRAIN™ has a flexible silicone membrane (1-way valve) which allows liquids to pass freely through, and instantly closes and seals once liquids stop flowing.

Why choose GREEN DRAIN™?

- GREEN DRAIN is the most simplistic remedy for mitigating unwanted sewer odors, sewer gases, pests, and aerosolized pathogens/bacteria, without the use of traditional caustic and harmful chemical applications. A truly Eco-Friendly solution for drain maintenance.

Does GREEN DRAIN™ replace a traditional water trap seal?

GREEN DRAIN™ replaces a traditional trap seal contributing numerous advantages:

- Improves indoor air quality due to no sewer smell and gases.
- Prevents wastewater penetration/backflow.
- Self-cleaning and does not block the water flow.
- No dry water seals and resists vacuum in the drainage system.
- Decreases evaporation time within existing traps.

Can GREEN DRAIN™ be installed where traditional Traps are not present?

- YES, please revert to your local plumbing codes for acceptability.

Can GREEN DRAIN™ be installed horizontally and vertically?

- GREEN DRAIN contains no liquids, and functions perfectly both horizontally and vertically.

What materials are used to produce GREEN DRAIN™?

- GREEN DRAIN™ consists of UV resistant ABS housing, a silicone rubber sealant/membrane (1-way valve), and four flexible sealing flanges for easy installation and perfect fit.

Can I install a GREEN DRAIN if I have a P-trap in the ground?

YES, GREEN DRAIN™ is NOT a traditional water trap and does not contain liquids.

- GREEN DRAIN™ can be used in conjunction with Trap Primers or installed where Trap Primers are nonexistent. Check with your local jurisdiction for approvals to use GREEN DRAIN™ in lieu of water-fed Trap Primers.

Is GREEN DRAIN™ categorized as a Backflow Device?

NO, GREEN DRAIN™ is not a backflow device, however, it can withstand up to 4 lbs. of pressure before the silicone valve inverts.

Plumbing regulations for Trap Seal Devices require the silicone valve to essentially fail or invert if the pressure within the pipe is greater than 4 lbs.

- GREEN DRAIN™ provides a barrier of protection between the sewer and the application site. Used in the outlet connections of floor drain bodies, or the inside of floor drain strainers to seal the opening to prevent odors, sewer gases, and insects from entering up through the floor drain grate. The Green Drain's four flexible silicone sealing ribs ensure easy installation into openings that have variations in size. The Green Drain will open to allow drainage and close when there is no water flow. This Inline Drain Trap can be used in either new construction or retrofit applications where trap primers were never installed. Order this one way drain valve online today.



CANADIAN INSTITUTE OF PLUMBING & HEATING L'INSTITUT CANADIEN DE PLOMBERIE ET DE CHAUFFAGE

A National Voice With Regional Roots | Une histoire régionale, une voix nationale

CIPH Information Bulletin—September 2012

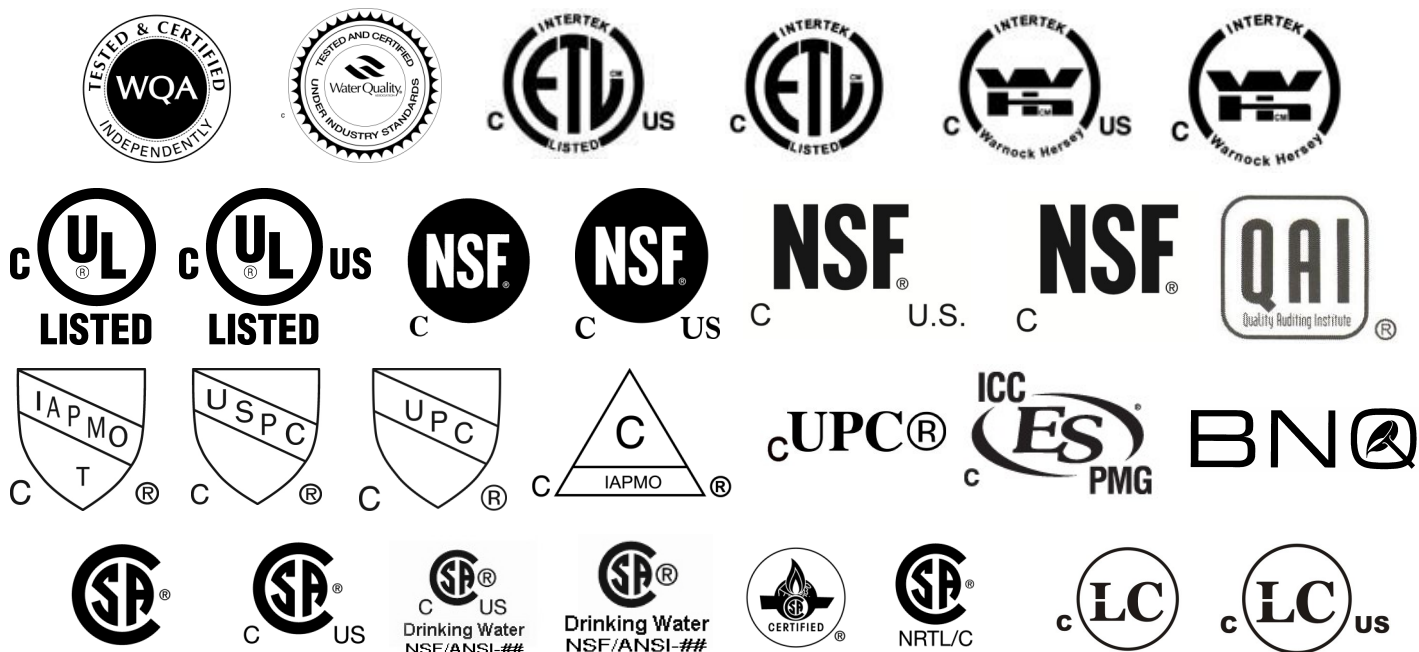
Plumbing Products Certified for Use in Canada

Background

This information bulletin from the Canadian Institute of Plumbing and Heating (CIPH), will aid wholesale distributors, retailers and inspectors to identify plumbing and water treatment products that are currently certified for use in Canada. Products that do not bear one of the following marks may not be appropriate for sale and installation in all jurisdictions and in some cases may create health and safety issues.

How do I know if a product is certified?

There are several certification organizations that are accredited to certify product in North America and the



certifying body is required to ensure their mark is placed on product it certifies. Here are the marks that are currently accepted in Canada:

If I see a mark that I think is questionable, how do I verify if the product is acceptable?

All of the accredited certification organizations in North America have a webpage that can be accessed to verify certified product listings. Organizations approved to certify products in Canada are:

BNQ: http://www-es.criq.qc.ca/pls/owa_es/bnqw_entr_enr.crit_rech?p_lang=en&p_type_bng=NC

CSA: <http://directories.csa-international.org/>

IAPMO: <http://pld.iapmo.org/>

ICC: http://www.icc-es-pmg.org/Listing_Directory/

Intertek: <http://www.intertek.com/directories/>

LabTest: <http://www.labtestcert.com/labtest/>

NSF: http://www.nsf.org/business/search_listings/

QAI: <http://www.qai.org/listing-directory.html>

UL & ULC: <http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/index.html>

Water Quality Association: <http://www.wqa.org/sitelogic.cfm?id=1165§ion=3>

Each organization's scope of accreditation and certification marks can also be accessed at the Standards Council of Canada (SCC): <http://www.scc.ca/en/accreditation/product-process-and-service-certification/directory-of-accredited-clients>



CIPH Information Bulletin—September 2012

Plumbing Products Certified for Use in Canada—FAQ's

What are the advantages to using certified product?

- Certified products have been produced and certified to demonstrated standards of performance;
 - They have been evaluated to ensure they will perform properly (i.e. ensuring the threads are the correct type so you can connect the product easily, as one example);
- They are regularly checked for compliance by accredited certification organizations to ensure products continue to be manufactured in accordance with national standards; and
- Where required, they have been evaluated for toxicological concerns.

What's the harm in stocking and selling uncertified fixtures/fittings?

In Alberta and Quebec, it is illegal to stock and sell unapproved products that are subject to applied standards and is enforceable by law. In other jurisdictions of Canada, it may not be considered illegal to sell the product, but provincial regulations forbid their installation. This means that if you stock and sell these products, you can expect to have a high percentage of them disallowed by provincial/municipal inspectors and returned to you. Also, there is no assurance that uncertified fixtures/fittings meet Canadian recognized standards or where standards do not exist, meet reasonable expectations for performance, health and safety.

What if fixture manufacturer "x" has their product certified, but has not marked the product?

Certified product is required to bear the certification mark. Some fixture manufacturers acknowledge that customers want an aesthetic that is mark-free and choose to mark their product with a permanent adhesive label (which is designed to be removed after inspection and will also self-destruct so that it can not be placed on another product). If an adhesive label is accidentally removed prior to inspection, the inspector has no choice but to assume the product is uncertified and request its removal. Therefore, it is important that contractors and consumers maintain proof of the product certification compliance on the product (in addition to the carton, installation instructions, warranty and homeowners manual and specification sheet) until AFTER inspection.

Myth	Reality
All plumbing product sold through the wholesale chain is suitable for sale and installation.	If a product has a Canadian or a harmonized U.S. - Canadian standard that it can be certified to and it is not certified, it may cause health and safety concerns, including damage to the building it is being installed in. There are certain plumbing products (i.e. certain water treatment devices) that may not have a standard to which it can be certified. These products are an exception to the rule and are permitted for sale and installation.
Installing uncertified plumbing product does not violate any provincial/territorial regulations.	CIPH is not aware of a single jurisdiction in Canada that allows uncertified product to knowingly be installed. Alberta and Quebec also have legislation against the sale of such product (again, noting the exception of products that do not have a standard to be certified to).

Who should I contact if I have further questions on uncertified plumbing product?

If you need to talk to a building official for guidance, CIPH has a list of regulators by region at: <http://www.ciph.com/Downloads/codesAndStandards/cacpRegulators.php> or visit the Standards Council of Canada website at : <http://www.scc.ca/>