

**TYPE APPROVAL CERTIFICATE****This is to certify:****That the Miscellaneous Fittings for Pressurised Equipment**with type designation(s)  
**SprayStop Standard, SprayStop 50 Plus (one layer)**

Issued to

**T-ISS B.V.****Dinxperlo Gelderland, Netherlands**

is found to comply with

**DNV GL rules for classification – Ships****Application :****Screening of pipe joints and fittings in accordance with SOLAS Chapter II-2, Regulation 4, item 2.2.5.3**

Type:	Temperature range:	Design pressure:	Operating media:
<b>SprayStop Standard</b>	<b>150 degrees Celsius</b>	<b>15 barg internal pressure</b>	<b>Fuel oil, lube oil and other flammable oils</b>
<b>SprayStop 50 Plus (one layer)</b>	<b>150 degrees Celsius</b>	<b>37 barg internal pressure</b>	<b>Fuel oil, lube oil and other flammable oils</b>

Issued at **Høvik** on **2017-08-31**This Certificate is valid until **2022-08-30**.DNV GL local station: **Rotterdam, Offshore & Newbuilding**Approval Engineer: **Ole Henrik Kverndal Pedersen**for **DNV GL**Digitally Signed By: Torill Grimstad Osberg  
DNV GL Høvik, Norway**Torill Grimstad Osberg**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.





CERTIFICATE NUMBER	19-HS1927279-PDA
EFFECTIVE DATE	16-Dec-2019
EXPIRY DATE	15-Dec-2024
ABS TECHNICAL OFFICE	Houston ESD

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**T-ISS B.V.**

located at

**HELMKAMP 32-34, DINXPERLO, Netherlands, 7091 HR**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Shielding, oil from source of ignition**

**Model Spray Stop Anti Splash Tape(Standard & 50 Plus)**

This Product Design Assessment (PDA) Certificate remains valid until 15/Dec/2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Yongjin Lee,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)



Marine &amp; Offshore

Certificate number: 23131/C0 BV

File number: ACM 136/2103/01

Product code: 2180H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**T-ISS B.V.**

Dinxperlo - NETHERLANDS

*for the type of product*

### ANTI-SPRAYING PIPE FLANGES & JOINTS SYSTEMS

SPRAYSTOP Standard and SPRAYSTOP 50 Plus anti-splash tapes

#### Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- SOLAS 74 as amended, Regulation II-2/4.2.2.5.3 /4.2.3 /4.2.4

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

*This certificate is a renewal of certificate N° 23131/B0 BV expiring on 05/03/2020*

**This certificate will expire on: 05 Mar 2025**

**For Bureau Veritas Marine & Offshore,**

At BV GRONINGEN, on 17 Oct 2019,

John Mondt



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
FS18PWA00003

## 工厂认可证书 CERTIFICATE OF WORKS APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

### 制造厂/Manufacturer

T-ISS BV, the Netherlands

### 地址/Address

Helmkamp 32-34, 7091HR, Dinxperlo, the Netherlands

### 产品名称/Product

防溅胶带  
Anti Spray Tape

### 附加标志/Notations

无/Nil.

### 认可标准/Approval Standard

- 1974年《国际海上人命安全公约》及其修正案第II-2章第4条  
Regulation 4, Chapter II-2 of International Convention for the Safety of Life at Sea, 1974, as Amended
- 中国船级社《钢质海船入级规范》(2018)及其修改通报第3篇第4章  
Chapter 4, Part Three of China Classification Society Rules for Classification of Sea-going Steel Ships 2018 and its Amendments

### 用于/Intended for

船舶与海上设施/Ships and Offshore Installations

### 批准的图纸/Approved Drawings

图纸批准号/Drawings Approval No.: FS11T00001, FS18PWA00003

### 产品认可试验报告/Approval Test Report

试验报告编号/Test Report No.: 20050289  
试验报告日期/Test Report Date: 2005-06-21

证书有效期至/This Certificate is valid until 2023年02月02日/ Feb. 02, 2023

发证机构 中国船级社釜山分社  
Issued by CCS Busan Branch

签发日期 2019年01月28日  
Date Jan. 28, 2019

本证书根据中国船级社规范及相关规定签发。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效，任何单位和个人均不得摘录或节选本证书的部分内容。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。  
This Certificate is issued pursuant to the Rules of the Society and related regulation. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.

Form No: W031 联系方式/Contact Us: 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

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UTN:P019-661917



No. 17517662



试验报告编号/Test Report No.: 2911/07/2005  
 试验报告日期/Test Report Date: 2005-11-14  
 试验报告编号/Test Report No.: T2012-303590-004  
 试验报告日期/Test Report Date: 2012-12-10

### 认可后的产品检验方式/Module of Product Inspection after Approval

按照规范只认可不进行产品检验的产品/The product approved only in term of the rules:  
 认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。  
 After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

### 认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤销认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

### 备注/Remarks

1. 本证书由原型式认可证书 (No. FS14T00041) 变更并换新。

This certificate is modified and renewed from the previous Type Approval Certificate No. FS14T00041.

2. The product is produced under the licence of T-ISS BV.

3. The product is used for screening of pipe joints and fittings in accordance with SOLAS II-2,

Reg. 12.2.2.5.

4. 本社已审核了产品无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society.

However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.



**产品明细/Product Description****防溅胶带/Anti Spray Tape (M001)**

名称/Name	属性(值)/Value	单位/Unit
型号/Type	T-ISS SPRAY STOP STANDARD & SPRAY STOP 50+	
产品尺寸/Dimension	0.25mm x 35/50/140/250/500/1000mm x 10M, 0.36mm x 35/50/140/250/500/1000mm x 10M	
材料/Material	Aluminium-fiber sheet, Silicone adhesive, Backing film	
设计压力/Design pressure	1.5 MPa for SPRAY STOP STANDARD; 3.7 MPa for SPRAY STOP 50+	
温度范围/Temperature range	Max. 150°C (Fluid Temp.)	

中国船级社釜山分社  
CCS Busan Branch

\*\*\*\*\*本证书完/ End of Text\*\*\*\*\*







NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE

Certificate No. TA17183M

**This is to certify** that the undernoted product(s)/manufacturing process has/have been approved /type tested in accordance with the relevant requirements of "Rules for the Survey and Construction of Steel Ships" and "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use".

This certificate is issued to

Manufacturer:	<b>T-ISS, Netherlands</b>
Product description	<b>Anti-splashing tape</b>
Type designation(s):	<b>SprayStop Standard</b> <b>SprayStop 50+</b>
Approval No.:	<b>08FV901B</b>
Valid until:	<b>5 February 2023</b>

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 4 August 2017.

  
F. Taguchi  
General Manager  
Machinery Department



## TYPE APPROVAL CERTIFICATE

**Certificate No.** : RTD25219-IM001 **Initial Approval :** 28th October, 2009  
**Product** : Anti-splashing Tape & Sheet  
**Manufacturer** : T-ISS B.V.  
Helmkamp 32-34, 7091HR Dinxperlo, The Netherlands

**Product Description** : SPRAYSTOP anti-splash tape

" See Appendix 1 "

**Approval Condition** : " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 5, Ch. 6, Sec. 9, Art. 901 of the rules for Classification of Steel Ships and Ch. II-2, Reg. 4.2.2.5.3 of SOLAS 1974 as amended.

This Certificate is valid until 27th October, 2024

Issued at Busan, Korea on 22nd August, 2019



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No (ME19022536896) and certificate No.(RTD25219-IM001).



KOREAN REGISTER OF SHIPPING

General Manager of  
Marine & Ocean Equipment Team

**Note :** 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.  
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.



## Product Description and/or Approval Condition

Certificate No : RTD25219-IM001

Date of Issue : 22nd August, 2019

### A. Product Description

#### 1. Product Specification

Type	Design Pressure	Design Temperature
Spray stop standard	Piping for Max. 15 bar of Internal Pressure	150 °C
Spray stop 50+	Piping for Max. 21 bar of Internal Pressure	150 °C

- 1) Construction of Material :  
Spraystop anti-splash tape is a multilayer aluminium / glasscloth / PET Liner with a special adhesive for installation.
- 2) Product Dimension  
 Spray stop standard : 205 $\mu$ m  $\pm$  22(T)  $\times$  35/50/140/250/500/1000mm(W)  $\times$  10M(L)  
 Spray stop 50+ : 315 $\mu$ m  $\pm$  42(T)  $\times$  35/50/140/250/500/1000mm(W)  $\times$  10M(L)
- 3) Intended for :  
Preventing splash of fuel oil, lube oil and other flammable oils from piping lines including flanges and joints in engine rooms or other enclosed spaces in compliance with Regulation II-2/4.2.2.5.3 of SOLAS 1974 as amended.

#### 2. Approved Drawings and Documents

- 1) Documents for approval booklet No.TISS-DWG-SPS 201901 dated on 26th March, 2019

#### 3. Test Reports, etc.

- 1) Biochem/tiss002 dated on 17th February 2009 issued by Biochem.
- 2) 2911/07/2005 dated on 30th November, 2005 issued by GAMEVA bv.
- 3) 20050289 dated on 21st June, 2005 issued by Fire Insurers Laboratories of Korea.
- 4) T2012-303590-004 dated on 11st December, 2012 issued by Textile Lab.
- 5) KNW., Report No. KWQA020110402TISS, dated 2 April 2011.
- 6) KNW., Report No. KWQAP20110706TISS, dated 6 July 2011.
- 7) KNW., Report No. KWQAP20111215TISS, dated 15 December 2012.
- 8) KNW., Report No. KWQAP20120319TISS, dated 19 March 2012.
- 9) KNW., Report No. KWQAP20120710TISS, dated 10 July 2012.
- 10) KNW., Report No. KWQAP20120919TISS, dated 19 September 2012.
- 11) KNW., Report No. KWQAP20130215TISS, dated 15 February 2013.
- 12) KNW., Report No. KWQAP20130215TISS, dated 15 February 2013.

### B. Approval Condition

#### 1. Application & Limitation

- 1) Installation of the tape is to be carried out in accordance with the Manufacturer's instruction.
- 2) The SPRAYSTOP anti-splash tape cannot be used for pipes insulation or as replacement for pipe gaskets and sealings.

#### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required.

#### 3. Marking

- 1) The product or packing is to be marked with manufacturer name and type designation on a suitable position.

#### 4. Others

N/A

&lt; The end of Certificate &gt;

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

**Manufacturer** T-ISS B.V.

**Address** Helmkamp 32-34, Dinxperlo, 7091 HR, Netherlands

**Type** Leakage And Splash Screening Products

**Description** T-ISS SPRAY STOP Anti-Splash Tape Standard  
 T-ISS SPRAY STOP Anti-Splash Tape 50 Plus

**Application** Anti-Spray Tape for screening pipe joints and fittings, in piping systems, containing oil fuel or other flammable oils (flashpoint > 60 deg.C), in accordance with IMO SOLAS Regulation II-2 / 4.2.2.5.3

**Specified Standard** IMO Resolution A.653(16) "Fire Test Procedures for Surface Flammability"  
 LR Rules and Regulations for Classification of Ships, July 2014

**Ratings**

Maximum Pressure:	up to 15 bar,
Maximum Temperature:	up to 150° C
Outside pipe diameter (mm):	up to 300 (12"), flanged joints up to 51 (2"), screwed joints.



**Matthijs Breel**

Lead Specialist Propulsion Systems and  
 Deputy to Lloyd's Register EMEA  
 A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, UK

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# Type Approval Certificate

## Other Conditions

Restricted to oil pressure pipes located above the floor plates and which have no insulation in way of the joints.

Use is restricted to easily accessible positions, where the integrity of the application may be inspected regularly and new covering to be applied after removal for maintenance purposes.

In all cases the SPRAY STOP Standard tape and SPRAY STOP 50 Plus tape are to be installed in accordance with the manufacturers' instructions.

The SPRAY STOP Standard tape and SPRAY STOP 50 Plus tape shall only be used for screening pipe joints and fittings to avoid oil spray or oil leakages onto possible sources of ignition in machinery spaces.

A drain hole is to be provided to ensure that in case of a leakage oil spray will be avoided and the oil leakage is to be drained to a safe position. Any leakage is to drain directly into the bilges or a suitable drainage arrangement is to be provided.

The SPRAY STOP Standard tape and SPRAY STOP 50 Plus tape cannot be used for pipes insulation, or as replacement for pipe gaskets and sealings.

The SPRAY STOP Standard tape and SPRAY STOP 50 Plus tape cannot be accepted, as an alternative means for compliance to other piping design and system requirements, where applicable, for piping systems containing oil fuel or other flammable oils.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. 19.30023\_ENG and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, UK

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, jointly and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is limited to the terms and conditions set out in that contract.



**TYPE APPROVAL CERTIFICATE**  
**No. MAC287520XG**

**This is to certify** that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	<b>Anti-splashing equipment</b>
<i>Type</i>	<b>T-ISS Spraystop standard ; Spraystop 50+</b>
<i>Applicant</i>	<b>T-ISS BV HELMKAMP 34 7091 HR DINXPERLO NETHERLANDS</b>
<i>Manufacturer</i>	<b>T-ISS BV</b>
<i>Place of manufacture</i>	<b>HELMKAMP 34 7091 HR DINXPERLO NETHERLANDS</b>
<i>Reference standards</i>	<b>Chapter II-2 of Solas '74 as amended</b>

*Issued in* **HAMBURG** on **November 29, 2020**. *This Certificate is valid until* **February 15, 2026**

  
\_\_\_\_\_  
**RINA Services S.p.A.**  
**Giuseppe Russo**

This certificate consists of this page and 1 enclosure



## TYPE APPROVAL CERTIFICATE

No. **MAC287520XG**

**Enclosure - Page 1 of 1**

**T-ISS Spraystop standard**

**Spraystop 50+**

### Technical characteristics

SPRAYSTOP T-ISS Spraystop standard , Spraystop 50+

#### Specification:

- Multilayer Aluminium/ Glasscloth/ PET liner with special adhesive.
- Surface printing/ Aluminium foil/ coated layer/ glass fiber layer/ silicon coated layer/ clear PET liner.

#### Rating:

According to Manufacturer's instructions.

### Documents

- Pressure test, Ganewa bv File number 2911/07/2005 dated 28-29-30/11/2005,
- Surface flammability test, FILK (Korea) File number 20050289.

### Application limit

Anty-Spray Tape for screening pipe joints and fittings, in piping systems containing oil fuel or other flammable oils, in accordance with IMO SOLAS 74 as amended Regulation II-2/4.2.2.5.3.

The approval is restricted to piping systems which are readily accessible for maintenance and inspection purposes. The SPRAYSTOP anti-splash tape cannot be used for pipes insulation or as replacement for pipe gaskets and sealing.

The Manufacturer has to inform the users about proper methods of application and general maintenance of the SPRAYSTOP anti splash tape.

The installation on-board is to be satisfactorily witnessed by RINA Surveyor for each application on board ships.

**HAMBURG November 29, 2020**

