



## CERTIFICATE OF TYPE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

**Manufacturer** 3M Personal Safety Division

**Address** 3M Center, 235-2F-06  
St. Paul, MN 55144-1000  
United States of America (USA)

**Product Type** **RETRO-REFLECTIVE MATERIALS**

**Product Description** Retro-reflective marking material – Type: "Scotchlite™ High Intensity Grade SOLAS Reflective Sheeting Series 3150-A"

**Specified Standards** IMO Resolution A.658 (16), Annex 2

**The attached Design Appraisal Document forms part of this certificate.**

**This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.**

Date of issue 8 August 2018

Expiry date 7 August 2023

Certificate No. SAS S180049

Signed

Sheet No 1 of 3

Name

B. McDonald  
Surveyor to Lloyd's Register EMEA  
A Member of the Lloyd's Register Group

**Note:**

**This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate.**

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, 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 exclusively on the terms and conditions set out in that contract.



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## DESIGN APPRAISAL DOCUMENT

Date 8 August 2018	Quote this reference on all future communications UKITSO/SFS/TA/LSA/BM/WP33503606
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### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S180049

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate

This Certificate is a renewal of Certificate No. SAS S130054

#### EXAMINED DOCUMENTATION

- Construction Plans "Scotchlite" Brand SOLAS Grade Sheeting 3150-A dated 16 March 1996
- 3M Technical Data Sheet for "Scotchlite"

#### TEST REPORTS

- Test report for Seawater Immersion test, dated 30.04.07
- Test report for Adhesive Strength tests, dated 30.04.07
- Test report for Temperature Resistance test, dated 30.04.07
- 3M Master Test Report List dated 8-7-13 - SOLAS Application for Statutory Type Approval for 3M 3150-A, 6750-I and 6755
- Lloyd's Register Factual Statement # WO3261797
- Lloyd's Register Verification Visit Report - Calvard January 2012

#### CONDITIONS OF CERTIFICATION

1. The material shall be marked and identified as required by the applicable regulations
2. Approval of this material is only applicable to its use when applied to life-saving appliances as defined by the applicable regulations stated on Page 1 of this certificate
3. The 3150-A is suitable for use with the following substrates:
  - a) Aluminium
  - b) GRP
  - c) Rubber
  - d) Vinyl/PVC
  - e) Polyurethane
4. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5



Lloyd's  
Register

**Lloyd's Register EMEA**

71 Fenchurch Street, London, EC3M 4BS

Telephone 020 7423 2416 Fax 020 7423 2053

Email [tass@lr.org](mailto:tass@lr.org)

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6. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and each item, batch, or lot be delivered with an LR Certificate of SOLAS Production Testing issued by the attending LR Surveyors following their witness of the tests. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
7. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained

**PLACE OF PRODUCTION**

3M Brownwood  
4501 Highway 377 South  
Brownwood, TX 76801  
United States of America (USA)



Bruce McDonald  
TSC Manager - Americas, Marine  
Lloyd's Register Americas  
Lloyd's Register EMEA

**Supplementary Type Approval Terms and Conditions**

*This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).*