

Certificate Of Fire 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	Jessup Manufacturing Company
Address	2815 West IL State Route 120, McHenry, Illinois, United States of America (USA)
Type	Photoluminescent Materials
Description	Photoluminescent thin gauge polyester film – Types: "7500 series Glo Brite®" and "7600 series Glo Brite®"
Trade Name	7500 series Glo Brite® and 7600 series Glo Brite®
Specified Standard	IMO Res.A.752(18) ISO 15370 : 2010 Annex A – Testing of photoluminescent materials

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 EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form 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.

Lijo Thomas

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A member of the Lloyd's Register group

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR21189642SF

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.

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This Certificate is a Renewal of Certificate No. SAS F150264/M1

EXAMINED DOCUMENTATION

Measurements of photoluminescence with low stimulation according to ISO 15370:2010, RISE Test report No: 105105-21-122986-03rev1 dated 22/04/2021.

Measurements of photoluminescence with low stimulation according to ISO 15370:2010, RISE Test report No: 105105-21-122986-01rev1 dated 22/04/2021.

Needle Flame Test according to BS EN 60695-11-5:2005 carried out on 7500 series LLL material, report No:436949, dated 2nd March 2021.

Needle Flame Test according to BS EN 60695-11-5:2005 carried out on 7600 series LLL material, report No:435951, dated 2nd March 2021.

CONDITIONS OF CERTIFICATION

1. Approval limited to the luminance properties of photoluminescent thin gauge polyester films – Types: “7500 series Glo Brite®” and “7600 series Glo Brite®”.
2. Chromaticity area (colour classification)-

	x	y
7500 series Glo Brite®	0,276	0,575
7600 series Glo Brite®	0,275	0,575

3. The LLL system shall provide a luminance of at least 15 mcd/m² measured 10 min after the removal of all external illuminating sources and shall continue to provide luminance values greater than 2 mcd/m² for 60 min. All photoluminescent materials are to be provided with no less than the minimum level of incident/ambient excitation light necessary to charge the material to provide luminance greater than 2 mcd/m² after 60 min as per the below table depending on their widths. PL strips having a width less than 75 mm shall only be used where the excitation illuminance (lx) is increased to achieve the minimum luminance (mcd/m²) to compensate for the reduced width in accordance with the table.

	Width (mm)	Minimum Luminance (mcd/m ²) after 10 minutes	Minimum Luminance (mcd/m ²) after 60 minutes	Minimum required excitation illuminance (lx) for fluorescent tube lamp with a colour temperature of 4100 °K
7500 series Glo Brite®	75	15	2	3.5
	25	135	18	180
7600 series Glo Brite®	75	15	2	3
	25	135	18	100

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4. The minimum excitation illuminance for the tested light source is to be marked on the product.
5. The arrangement of LLL systems on vessels shall be approved by the competent authority. For this purpose, the manufacturer or the installer shall submit the installation plan and description, including certificates which state that the materials and components of PL to the competent authority. On board arrangements in each case to be approved by competent authority at the design stage in accordance with IMO Resolution A.752(18).
6. After the installation, photoluminescent systems shall be tested at the place of use in accordance with annex B of ISO 15370:2010 at least twice on each deck and the measurements shall be recorded in accordance with annex C of ISO 15370:2010. This measurement shall be repeated and recorded whenever the lighting system, walls, floor or ceiling decorations in the area are substantially changed.
7. It is recommended that, at least once a year, LLL systems be tested on one deck in each main vertical zone. The complete installations should have their luminance tested at least once every five years.
8. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.
9. 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 Lloyd's Register prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.
10. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class rules as applicable and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

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PLACE OF PRODUCTION

Jessup Manufacturing Company
2815 West IL State Route 120
McHenry, Illinois
United States of America (USA)

Jessup Manufacturing Company
1701 Rockland Road
Lake Bluff, Illinois
United States of America (USA)



Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
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).