

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

LG Hausys Ltd

Address

Surface Materials Division Strategy Team

One IFC 18F

10 Gukjegeumyung-ro Yeongdeungpo-gu

Seoul

150-876 Republic of Korea

Type

MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS & NOT

CAPABLE OF PRODUCING EXCESSIVE QUANTITIES OF SMOKE & TOXIC

PRODUCTS OF COMBUSTION

Description

Fire Resisting Material - Type: "HI-MACS FR SOLID" Decorative Covering Product

Nos S705, S706, S728, S729, S801

Specified Standard

IMO Res. MSC.61(67) - (FTP Code) Annex 1, Part 5 and Annex 2

IMO MSC/Circ 1120

IMO Res. MSC.307(88) - (2010 FTP Code) Section 8

IMO Res. MSC.307(88) - (2010 FTP Code) Annex 1 Part 2 and Part 5

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

10 December 2018

Expiry date 9 December 2023

Certificate No.

SAS F180229

Signed



Sheet No

1 of 3

Name

J. Evans

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.



Lloyd's Register EMEA

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DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
10 December 2018	UKITSO/FIRE/TA/JE/WP33356097

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180229

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Fire Insurer's Laboratories of Korea (FILK), Gyeonggi-Do, Korea; Fire Test Report No. 2008-0317 dated June 2008.

RINA Fire Protection Research Laboratory, Genova, Italy; Fire Test Reports No. 2017CS01435/13 dated 27^{th} June 2018 and No. 2017CS01435/14 dated 4^{th} July 2018.

CONDITIONS OF CERTIFICATION

- 1. When bonded to a non-combustible substrate with an approved adhesive
- HI-MACS FR-Solid decorative covering for furniture and bulkheads applied to a maximum thickness of 12mm
- 3. Composition of individual materials to be maintained in production in accordance with originally tested composition formula
- 4. Smoke and toxicity criteria is satisfied by meeting the total heat release (Q_t) and peak heat release rate (q_p) as stated in IMO Fire Test Procedures Code, Annex 2, Section 2.2
- 5. 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



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PLACE OF PRODUCTION

LG Hausys Ltd Oksan Plant Surface Materials Engineering Team 9, Oksansandan 3-ro Oksan-myeon Heungdeok-gu Cheongju-si Chungcheongbuk-do Republic of Korea



Jessica Evans Senior Specialist Statutory Fire & Safety Southampton 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).