



CERTIFICATE OF FIRE APPROVAL


This is to certify that

The product(s) detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations for use on offshore installations classed with Lloyd's Register, and for use on offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Carboline Company
Address	350 Hanley Industrial Court Brentwood Missouri 63144 United States of America (USA)
Type	H-0 DECK
Equipment Description	Fire Resisting Structural H-0 Steel Deck insulated on underside with "THERMO-LAG 3000 (Fire-Sorb 2000)" reinforced with Carbon Fibre Mesh
Specified Standard	ISO 834-75, using Hydrocarbon Time/Temperature Relationship

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	15 May 2018	Expiry date	14 May 2023
Certificate No.	SAS F180206	Signed	
Sheet No	1 of 3	Name	B. Geary 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 19 July 2018	Quote this reference on all future communications SOUTSO/SFS/TA/BG/WP33179947
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180206

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Omega Point Laboratories, Texas, United States of America, Project No. 15521-101991, dated 16 April 1998.

CONDITIONS OF CERTIFICATION

1. The minimum application thickness of the "Thermo-Lag 3000" system for a Structural Steel Deck when applied to the stiffened underside of deck shall be: **4.0mm** for an H-0 (400) Deck, to restrict the steel core mean temperature rise to 400°C after 120 minutes
2. "Thermo-Lag 3000" to be reinforced at mid-depth with Carbon Fibre Mesh "Thermo-Lag 100-0" with 150mm overlaps for hydrocarbon fires
3. Insulated face of the deck to be exposed to the fire risk sides in all cases
4. For use in external locations only, where personnel are not normally present
5. Use in internal locations may be considered for limited application in modules or spaces not normally manned
6. Application in each case to be approved by Lloyd's Register at the design stage
7. 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

PLACE OF PRODUCTION

Carboline Company
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P.O. Box 3712
Lake Charles, LA 70601
United States of America (USA)

Carboline Co.
95 Airpark Vista Blvd
Dayton, Nevada 89403
United States of America (USA)



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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180206



Ben Geary
Technical Manager
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).