



CERTIFICATE NUMBER

09-SQ517432-PDA

DATE

12 November 2009

ABS TECHNICAL OFFICE

Shanghai Ship Engineering

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
**SHANGHAI SAIGE COMPOSITE MATERIALS CO., LTD. -
SHANGHAI**

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. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: FRP Grating

MODEL: SGMFR and SGPFR

ABS RULE: 2009 Steel Vessel Rules 1-1-4/7.7

OTHER STANDARD: ASTM E84-09;

AMERICAN BUREAU OF SHIPPING

Hong Zhu

Engineering Type Approval Co-ordinator

SHANGHAI SAIGE COMPOSITE MATERIALS CO., LTD.

1 DONGCHEN ROAD (S)
ORIENTAL ECONOMIC CITY
SHANGHAI
201112
China
Telephone: 86-21-64917778
Fax: 86-21-64915987

Product: FRP Grating

Model: SGMFR and SGPF

Intended Service:

1. Personnel walkways, catwalks, ladders, platforms or access areas in cargo holds, open decks or semi-enclosed areas.
2. All personnel walkways, catwalks, ladders, platforms or access areas in cargo tanks, fuel oil tanks, ballast water tanks, cofferdams void spaces, double bottoms, pipe tunnels, etc. where these space are not normally entered when underway.

Description:

SGMFR: Isophthalic polyester resin type fiberglass reinforced plastic molded grating
SGPF: Isophthalic polyester resin type fiberglass reinforced plastic pultruded grating

Ratings:

Flame Spread Index: 15 - SGMFR/SGPF
Smoke Developed Index: 400 - SGMFR / 650 - SGPF

Service Restrictions:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. Not to be used as walkways or areas, which may be used for escape or access for firefighting, emergency operation or rescue in machinery spaces and cargo holds.

Comments:

This approval was not done on behalf of a particular Administration.

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. Use in a non-classed vessel, MODU or Facility is to be to the satisfaction of the manufacturer and purchaser.

1. Test report No. 3176710SAT-001A dated September 25, 2009 (SGMFR)
 2. Test report No. 3176710SAT-001B dated September 25, 2009 (SGPF)
- (All issued by Intertek Testing Services NA, Inc. USA)

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 09-SQ517432-PDA, dated 12/Nov/2009. This PDA Certificate expires 11/Nov/2014. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.

STANDARDS

ABS Rules:

2009 Steel Vessel Rules 1-1-4/7.7

National:

ASTM E84-09

International:

NA

Government Authority:

NA

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EUMED:

NA

Others:

NA