



Confirmation of Product Type Approval

Company Name: STRONGWELL

Address: CHATFIELD DIVISION 1610 HIGHWAY 52 SOUTH MN 559239799 United States

Product: FRP Grating

Model(s): Duragrid Phenolic 45 mm and 38 mm Fiber Reinforced Polymer (FRP) Grating

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	18-HS1709908-PDA	14-MAR-2018	27-FEB-2023
Manufacturing Assessment (MA)	18-SB3555942	17-SEP-2018	01-OCT-2023
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3

Intended Service

Marine and Offshore application in walkways, catwalks, ladders, platforms or access areas in Open Decks, Semi-enclosed areas, Ballast Water Tanks, Cofferdams, Void Spaces, Double Bottoms, Pipe tunnels as authorized in the ABS Steel Vessels Rules 3-4-A1 or ABS Mobile Offshore Drilling Units Rules 5-3-A1.

Description

DURAGRID Phenolic is high strength pultruded fiberglass bar type gratings. DURAGRID Phenolic bearing bars may be 38mm or 45mm I-shapes, and complies with ASTM F3059.

Ratings

Structural Fire Integrity per ASTM F3059 Level 2 (L2), Level 3 (L3) and Level 0 (L0). Flame Spread and Smoke Generation per ASTM F3059 Section 16.

Service Restrictions

1. Unit Certification is not required for this product. If the manufacturer or purchaser's 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. ABS Steel Vessels Rules 3-4-A1 or ABS Mobile Offshore Drilling Units Rules 5-3-A1 (ABS Facilities Rules A3) identifies the locations and the applications acceptable for FRP gratings.
3. Not applicable to accommodations, service spaces, control stations, and machinery spaces.
4. DURAGRID Phenolic 38 mm or 45mm pultruded grating has a maximum bearing bar spacing of 38 mm on center and maximum unsupported span of 1120 mm.
5. Not intended to use in Drill floor and Hydrocarbon processing/production areas where hydrocarbon fires are expected. Refer to Comment #6.

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Approval not performed on behalf of any flag Administration.
3. The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.
4. 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 per tested/approved prototype.
5. DURAGRID Phenolic grating was tested to meet ASTM F3059 Section 8 through Section 17.
6. DURAGRID Phenolic grating is comply with the L2 fire resistance requirements of intact (pre-fire) testing (flame spread, smoke generation) as addressed in ASTM F3059, along with post fire testing with ASTM E119, cellulosic fire test, to center load test and uniform load test. If DURAGRID Phenolic is damaged with any hydrocarbon fires, damaged grating shall be strictly restricted to access unless replaced with new gratings.

Notes, Drawings and Documentation

Supporting Documentation:

1) For Duragrid Phenolic 38mm: COMTEC Job# 121115-02, dated January 2016; Smith-Emery Lab P#31371-1, dated January 2016; COMTEC Job# 061812-01, dated July 2012; Intertek, Report# 102429778SAT-003A, Rev1, February 2016; Intertek, Report# 102429778SAT-003B, Rev1, February 2016; Intertek, Report# 102299027SAT-003A, November 2015.

2) For Duragrid Phenolic 45mm: COMTEC Job# 081715-01, dated October 2015; Smith-Emery Lab P#31371-1, dated July 2001; COMTEC Job# 061812-01, dated July 2012; Intertek, Report# 101547766SAT-001, May 2014; Intertek, Report# 102337218SAT-001A, November 2015; SwRI P# 01.14431.01.309, February 2009.

Term of Validity

This Product Design Assessment (PDA) Certificate 18-HS1709908-PDA, dated 28/Feb/2018 remains valid until 27/Feb/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules

Rules for Conditions of Classification, Part 1 - 2018 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4; 3-4-A1;

Rules for Conditions of Classification, Part 1 - 2018 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2018 Mobile Offshore Drilling Units 5-3-A1;

2018 Facilities on Offshore Installations A3;

International Standards

NA

EU-MED Standards

NA

National Standards

ASTM F3059, Standard Specification for Fiber-Reinforced Polymer (FRP) Gratings Used in Marine Construction and Shipbuilding, 2015;

Government Standards

Coastal Guard Approval Number: 164.040/16/0, Fiber Reinforced Plastic Gratings, Duragrid ASTM F3059 38mm and 45mm FRP Gratings, expires 6 July 2019.

Other Standards

NA



A handwritten signature in black ink, appearing to read 'Joseph W. ...', is positioned above the printed name and date.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 07-Nov-2019 7:02

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.