

Fiber Reinforced Plastic (FRP) Grating

Amended Guidance

Guidance for the Survey and Construction of Steel Ships Part C

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

Reason for Amendment

Requirements related to the approval of use and application to ships of Fibre Reinforced Polymer (FRP) gratings have been stipulated in the NK Guidance. These requirements was based upon the United States Coast Guard issued USCG PFM 2-98.

In 2014, the USCG approached ASTM Committee F 25 to initiate a new governing standard for Class Societies, manufacturers, and testing labs to create a specification for FRP gratings. In response, ASTM Committee F 25 published ASTM F3059-14: a new industry standard for FRP gratings used in marine construction and shipbuilding. This new industry standard stipulates not only the performance requirements with respect to fire and heat, (items covered by USCG PFM 2-98), but performance requirements for general specifications such as durability and impact resistance (items not covered by USCG PFM 2-98). Therefore, Therefore, the new industry standard now makes it possible to evaluate FRP specifications in such a way which allows FRP grating to be more appropriately applied to ships.

Accordingly, relevant requirements were amended so that the testing procedures in accordance with ASTM F3059-14 are accepted as equivalent alternatives to the approval tests stipulated by the NK Guidance, and so that FRP gratings approved by such procedures can be applied to ships subject to the relevant requirements of ASTM F3059-14.

In addition, some wording of relevant requirements was modified in order to clarify the ambiguities about the approval tests for FRP products.

Outline of Amendment

- (1) Specified that FRP gratings approved by the Society through a fire integrity test and a flame spread test in accordance with ASTM F3059-14 can be applied to ships subject to the relevant requirements stipulated in said standard.
- (2) Partly modified the wording of the requirements for the approval tests.

Amended Requirements

Guidance for the Survey and Construction of Steel Ships

Part C: Annex C1.1.7-5 1.3.1, Table 1.3.1

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Part 2: 9.1.2, 9.4