

# Other Guidance

(Guidance for Composite Propellers)

- For external opinion inquiries -

2021. 01.



Machinery Rule Development Team

- Main Amendments -

(1) Enter into force on 1 July 2021 (the date of application for certification of products)

● To reflect Request for Establishment/Revision of Classification Technical Rules

| Present  | Amendment  | reason  |
|--|--|---|
| <p><b>CHAPTER 1 ~ CHAPTER 2</b> &lt;Omitted&gt;<br/> <b>CHAPTER 3 INDIVIDUAL PRODUCT</b></p> <p><b>Section 2 ~ Section 3</b> &lt;Omitted&gt;<br/> <b>Section 3 Product Inspection</b></p> <p><b>301. Testing and Inspection</b></p> <p>1. ~ 3. &lt;Omitted&gt;</p> <p>4. The following approval test of product inspection in addition to those specified in <b>Pt 5 Ch 3 Sec 3 307.</b> of the Rules and Guidance for the Classification of Steel Ships, test item, test method and acceptance criteria are to be conducted with attendance of the surveyor under the following requirements.</p> <p>(1) Test of fiber volume fraction and glass transition temperature</p> <p>(A) The test is carried out by extracting samples from any area in the propeller blade or the mould of the product.</p> <p>(B) Test method and acceptance criteria are to be conducted in accordance with the requirements in <b>Table 2.3.</b></p> <p>(C) &lt;New&gt;</p> <p>&lt;hereafter, omitted&gt;</p> | <p><b>CHAPTER 1 ~ CHAPTER 2</b> &lt;same as the present Guidance&gt;<br/> <b>CHAPTER 3 INDIVIDUAL PRODUCT</b></p> <p><b>Section 2 ~ Section 3</b> &lt;Same as the present Guidance&gt;<br/> <b>Section 3 Product Inspection</b></p> <p><b>301. Testing and Inspection</b></p> <p>1. ~ 3. &lt;Omitted&gt;</p> <p>4. The following approval test of product inspection in addition to those specified in <b>Pt 5 Ch 3 Sec 3 307.</b> of the Rules and Guidance for the Classification of Steel Ships, test item, test method and acceptance criteria are to be conducted with attendance of the surveyor under the following requirements.</p> <p>(1) Test of fiber volume fraction and glass transition temperature</p> <p>(A) The test is carried out by extracting samples from any area in the propeller blade or the mould of the product.</p> <p>(B) Test method and acceptance criteria are to be conducted in accordance with the requirements in <b>Table 2.3.</b></p> <p>(C) <u>If the glass transition temperature test is taken from a part of the mould and the test results of some products do not pass the criteria, the glass transition temperature test method for the product can be changed from <b>ASTM D7028</b> to <b>ISO 11357</b>. In this case, the changed test is to be carried out at least three times on the test part of the unsuccessful mould area, and the changed test on any part of the propeller blade is to be carried out at least six times. In this case, the glass transition temperature of all test samples taken from the propeller blade area shall be higher than the glass transition temperature result of parts of the mould and satisfy the criteria of error range in <b>Table 2.3.</b> (2021)</u></p> <p>&lt;hereafter, same as the present Guidance&gt;</p> | <p>* Request for Establishment/Revision of Classification Technical Rules (MRD4800-2-2021)</p> <p>When manufacturing a composite material product at the manufacturer's request, it is confirmed that there is an error in the glass transition temperature between some areas of the mold and between products according to the product location and thickness in the mold. The requirements were revised by supplementing the relevant technical matters.</p> |