



Request for Interpretation No. 32

of

AC Class Rule Version 1.4: December 8th 2015

Rule References:

18. GENERAL LIMITS ON MATERIALS AND CONSTRUCTION

- 18.1 Limits on materials and construction methods in Rule 18 apply except where altered by Rules 19, 20, 21 and 22.
- 18.2 A maximum of 15 kg of **FRP** constituent parts from commercially-available ex-stock material (e.g. tube, plate, etc.) may be used in the construction of the **AC Class Yacht**, provided that no single constituent part exceeds 3.0 kg. These constituent parts are not constrained by the materials limits and construction methods otherwise set out in the **AC Class Rule**.
- 18.3 Boron and Beryllium are prohibited except when used as an alloy in concentrations of less than 0.00042%, or in electronic components.
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Background.

This rule has been a feature of ACC Rules for a long time. It was originally introduced to permit the use of FRP material in plate or tube form whose material specification could not be determined. This material typically became a constituent part of the yacht such as winch backing plates etc. The questions that follow seek to clarify the ramifications of this rule now we are sailing multihulls not monohulls.

Questions.

Can the Measurement Committee confirm the following interpretation of Rule 18? Or if not, explain why it is at variance with theirs?

- 1) Rule 18.2 permits only **FRP**¹ parts.
 - 2) The FRP parts must be in a ready to use condition when delivered from the supplier, and be typically plate, tube, or pultrusion².
 - 3) The FRP parts envisioned in Rule 18.2 are constituent³ parts of the yacht, not constituent parts of the FRP. i.e. it does not permit the use of ex-stock dry fiber or pre-preg. sheet that falls outside the Class Rule Limits to laminate bespoke parts.
 - 4) Fibers used in the manufacture of the FRP tube, plate etc. are not subject to the prohibitions of Rule 18.3.
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¹ *Class Rule 1.4 (i) FRP means fiber-reinforced polymer matrix composites;*

² *OED "A process for making reinforced plastic articles in which a bundle of glass fibres is pulled through a resin bath and subsequently through a heated die to shape and cure the resin".*

³ *OED "That jointly constitute, compose, or make up. Of a single element: That goes to compose or make up; component".*

Interpretation:

- 1) Rule 18.2 permits only **FRP** parts to be used for the 15 kg of unconstrained ex-stock material.
- 2) The **FRP** parts referred to in Rule 18.2 must be in a ready-to-use condition when delivered from the supplier, and be typically plate, tube or similar products. Ex-stock indicates that buyers can obtain the product immediately because the seller has a supply available for sale. Use of constituent parts that fall under 18.2 shall be included in the Material Usage Schedule (see rule 24.2) submitted to the Measurement Committee.
- 3) The **FRP** parts referred to in Rule 18.2 are constituent parts of the yacht, not constituent parts of the **FRP**. i.e. it does not permit a competitor to use ex-stock dry fiber or pre-preg sheet or FRP (either cured or uncured) or similar products to laminate custom parts.
- 4) Fibers used in the manufacture of the ex-stock FRP tube, plate etc. are not subject to the prohibitions of Rule 18.3.

END

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