



## The Rating Rule

The Rating Formula below is what defines the 2.4mR. It should be noted however, that the article below is one interpretation and not to be considered a rule.

$$\text{Rating } R = \frac{L + 2d - F + \sqrt{S}}{2.37} = 2.4$$

Where,

L = the length according to Class Rule D.6.3

d = the midship girth difference according to Class Rule D.6.4

F = the freeboard height according to Class Rule D.6.5

S = the total sail area according to Class Rule G.2.3

The rating, R, and/ or the factors in the formula shall be added with penalties, if any, according to Class Rule D.7. Calculations shall be carried out to the nearest millimeter.

The rating formula above is the same formula as for the 12mR Class and the 6mR Class and some other mR classes. The difference is that R = 12.0 and 6.0 respectively instead of 2.4. Other dimensions for the 2.4mR Class are divided by 5 from the 12mR Class Rules or by 2.5 from the 6mR Class Rules. However, the draft of the 2.4mR must be deeper than the proportion to the other classes, as the sailing qualities would not be good enough otherwise. As the weight of the crew in a 2.4mR boat is higher than for a 12mR or a 6mR boat in proportion to the total weight of the boat and the crew, the weight of the 2.4mR boat has been decreased by 35 kg from the rating displacement.

The dimension L is the length of the boat in a plane 36mm above the water line plane, and added by the girth differences in the bow and the stern.

The freeboard height F shall not be more than 292mm when calculating the rating value.

The penalties mentioned in D.7 are for draft exceeding 1000mm, for displacement below the minimum displacement, for beam smaller than 720mm, and for tumble home exceeding 15mm. The minimum displacement is calculated from the formula  $(0.2 \times \text{LWL} + 0.6)3$ .

The sail area is the sum of the main sail triangle area and 85% of the fore triangle area. The main sail area is calculated as a right-angled triangle with the smaller sides P and E, where P is the length of the luff and E is the length on the boom. The fore triangle area is calculated as a right-angled triangle with the smaller sides I and J, where I is the forestay height and J is the fore triangle base which is the distance from the mast to the intersection of the forestay and the deck.