



The following amendments to the Class Rules have been approved by the Class Rules Sub-Committee to be effective 15th June 2015.

Rule - Appendix 4

Amendment: sails rules to read as follows

APPENDIX 4 - Sail Use and Measurement

Section A – Conditions for Racing

A.1 SAILS

A.1.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) After certification, **sails** shall not be altered in any way except as permitted by these **class rules**.
- (b) The following is permitted without re-**certification** or approval and may be done by anyone:
 - (1) Routine maintenance
 - (2) Addition of tell tales
 - (3) Addition of camber stripes
 - (4) Battens may be placed in the **batten pockets**
 - (5) Minor repairs, such as applying tape to holes or tears in the **body of the sail**
 - (6) Addition of national letters and sail numbers.

A.1.2 LIMITATIONS

- (a) Not more than one mainsail, one headsail and one spinnaker shall be carried aboard.
- (b) Not more than two mainsails, two headsails and two spinnakers shall be used during a World or a Continental Championship, except when a **sail** has been lost or damaged beyond repair where it may be replaced with the permission of the race committee.

A.1.3 MAINSAIL

(a) IDENTIFICATION

- (1) National letters must be in accordance with ISAF *RRS Appendix G*. *ISAF RRS Appendix G1.1(b)* is modified such that the **mainsail** shall carry national letters.
- (2) The sail number must be in accordance with *ISAF RRS Appendix G*. The sail number is allotted by the class association.

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(b) USE

- (1) No part of the mainsail shall extend above the lower edge of the mast **upper limit mark**.
- (2) No part of the mainsail shall extend behind the fore side of the boom **outer limit mark**.
- (3) **Luff** and **foot** bolt ropes shall be in the **spar** grooves.

A.1.4 SPINNAKER

(a) IDENTIFICATION

- (1) The sail number must be in accordance with *ISAF RRS Appendix G*. The sail number shall be the same as that on the mainsail.
- (2) *ISAF RRS Appendix G.1.3(d)* is modified such that national letters are not required on spinnakers.

Section B – Sails

B.1 PARTS

B.1.1 MANDATORY

- (a) **Mainsail**
- (b) **Headsail**

B.1.2 OPTIONAL

- (a) Spinnaker

B.2 GENERAL

B.2.1 RULES

- (a) **Sails** shall comply with the **class rules** in force at the time of **certification**.

B.2.2 CERTIFICATION

- (a) The **official measurer** shall **certify** mainsails and headsails in the **tack** and spinnakers in the **head** and shall sign and date the **certification mark**.
- (b) An ISAF In-House Certification (IHC) Authorizing Authority may appoint one or more **In-House Official Measurer(s)** to measure and **certify sails** produced by a manufacturer.

B.2.3 SAILMAKER

- (a) No licence is required.

B.2.4 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Alterations as described in Section A are permitted but any additional work requires new **certification** control and re-**certification**.

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B.3 MAINSAIL

B.3.1 IDENTIFICATION

- (a) The International Fireball Class insignia shall be a red disc, placed back to back on the two sides of the **mainsail**.

Measurement	minimum	maximum
Class insignia diameter	497 mm	523 mm

B.3.2 MATERIALS

- (a) The **body of the sail** shall consist of **woven ply** or **laminated ply**.
- (b) Where the **body of the sail** is made of **laminated ply**, the film shall be of polyester and the ply fibres shall be of polyester, polyethylene or aramid.
- (c) Where the **body of the sail** is made of **woven ply**, the ply fibres shall be of polyester.
- (d) **Primary reinforcement** and **secondary reinforcement** may be of **woven ply** or **laminated ply**.
- (e) Battens shall be made of glass fibre.

B.3.3 CONSTRUCTION

- (a) The construction shall be: **soft sail, single-ply sail**.
- (b) The **body of the sail** shall consist of the same **woven ply** or **laminated ply** throughout, except that within 400 mm of the **foot** an alternate material is permitted.
- (c) The **sail** shall have four batten **pockets** in the **leech**.
- (d) The **sail** may be constructed so that it can be reefed by means of one point adjacent to the **leech** no more than 275 mm from the **clew point**. No other reefing points are permitted.

Measurement	minimum	maximum
Reefing point to clew point	-	275 mm

- (e) Only the following are permitted: **Seams**, stitching, glues, tapes, **primary reinforcement**, **secondary reinforcement**, **tabling**, bolt ropes, corner eyes or webbing, headboard with fixings, Cunningham eye or pulley, batten pockets, **batten pocket patches**, batten pocket elastic, uppermost batten pocket end cap at luff end and tensioning or fastening device at leech end, leech line with cleat on leech, not more than two **windows**, one boom slide fixed at the **clew**, tell tales, sail shape indicator stripes, sail identification, sailmaker labels, certification mark, and items as permitted or prescribed by other applicable *rules*.
- (f) The **leech** shall not extend aft of straight lines between:
- (1) the **aft head point** and the intersection of the **leech** and the upper edge of the nearest **batten pocket**,



- (2) the intersection of the **leech** and the lower edge of a **batten pocket** and the intersection of the **leech** and the upper edge of an adjacent **batten pocket** below,
- (3) the **clew point** and the intersection of the **leech** and the lower edge of the nearest **batten pocket**.
- (g) The **sail** shall not be a **double luff sail**.

B.3.4 DIMENSIONS

Measurement	minimum	maximum
Leech length	-	6350 mm
Quarter width	-	2550 mm
Half width	-	1940 mm
Three-quarter width	-	1140 mm
Top width	-	180 mm
Primary reinforcement	-	320 mm
Secondary reinforcement:		
from sail corner measurement points	-	960 mm
from Cunningham eye or pulley	-	960 mm
for flutter patches	-	105 mm
for chafing patches	-	960 mm
for batten pocket patches	-	320 mm
at a reefing point adjacent to leech	-	960 mm
Tabling width	-	100 mm
Distance from clew point to foot bolt rope	-	100 mm
Distance from tack point to foot bolt rope	-	450 mm
Total window(s) area	-	0.28 m ²
Window(s) to sail edges	150 mm	-
Vertical extension of headboard from head point	-	160 mm
Batten pocket length:		
uppermost pocket: inside	-	1170 mm
intermediate pockets: inside	-	885 mm
lowermost pocket: inside	-	735 mm
Batten pocket width:		
inside	-	50 mm
outside	-	80 mm
Head point to intersection of leech and centreline of uppermost batten pocket	1285 mm	-
Clew point to intersection of leech and	800 mm	-



Measurement	minimum	maximum
centreline of lowermost batten pocket		
Distance from lowermost batten pocket to foot	800 mm	-

B.4 HEADSAIL

B.4.1 MATERIALS

- (a) The **body of the sail** shall consist of **woven ply** or **laminated ply**.
- (b) Where the **body of the sail** is made of **laminated ply**, the film shall be of polyester and the ply fibres shall be of polyester, polyethylene or aramid.
- (c) Where the **body of the sail** is made of **woven ply**, the ply fibres shall be of polyester.
- (d) **Primary reinforcement** and **secondary reinforcement** may be of **woven ply** or **laminated ply**.

B.4.2 CONSTRUCTION

- (a) The construction shall be: **soft sail, single-ply sail**.
- (b) The **body of the sail** shall consist of the same **woven ply** or **laminated ply** throughout.
- (c) The **leech** shall not extend beyond a straight line from the aft **head point** to the **clew point**.
- (d) Only the following are permitted: **Seams**, stitching, glues, tapes, **primary reinforcement**, **secondary reinforcement**, **tabling**, corner eyes or webbing, Cunningham eye, hanks, leech line with cleat on leech, not more than two **windows**, tell tales, sail shape indicator stripes, sail identification, sailmaker labels, certification mark, and items as permitted or prescribed by other applicable *rules*.
- (e) The **luff** shall not enclose the forestay.

B.4.3 DIMENSIONS

Measurement	minimum	maximum
Luff length	-	4320 mm
Luff Perpendicular	-	1525 mm
Foot median minus the mean of the luff length and the leech length	-	155 mm
Top width	-	40 mm
Primary reinforcement	-	280 mm
Secondary reinforcement:		
from sail corner measurement points	-	840 mm
for flutter patches	-	75 mm



Measurement	minimum	maximum
for chafing patches	-	840 mm
Tabling width	-	40 mm
Total Window(s) area	-	0.28 m ²
Window(s) to sail edges	150 mm	-

B.5 SPINNAKER

B.5.1 MATERIALS

- (a) The **body of the sail, primary reinforcement** and **secondary reinforcement** shall be of nylon or polyester **woven ply**.

B.5.2 CONSTRUCTION

- (a) The construction shall be: **soft sail, single-ply sail**.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout. This limitation does not apply to the colour of the ply, which may differ from panel to panel.
- (c) Only the following are permitted: **Seams**, stitching, glues, tapes, **tabling, primary reinforcement, secondary reinforcement**, corner eyes or webbing, recovery line eyes or webbing, tell tales, sail indicator stripes, sail identification, sailmaker labels, certification mark, and items as permitted or prescribed by other applicable *rules*.

B.5.3 DIMENSIONS

Measurement	minimum	maximum
Leech length and luff length	-	4350 mm
Foot length	-	3000 mm
Foot Median	-	5100 mm
Difference between diagonals	-	50 mm
Half width	2810 mm	3450 mm
Primary reinforcement	-	280 mm
Secondary reinforcement:		
from sail corner measurement points	-	840 mm
For flutter patches	-	75 mm
for recovery line point	-	320 mm
Tabling width	-	40 mm