

ISO 9650 standard

ISO 9650 is the international standard implemented in March 2005, to set up formal specifications on liferafts for use on board recreational boats. This standard clearly states the performance level and technical specifications of the liferaft and materials used in its construction. It applies to all recreational boats under 24 metres (78 ft). However, this standard is not compulsory yet in all countries.

ISO 9650 standard defines 2 types of rafts according to the navigation type :

ISO 9650-1 Offshore navigation : type I liferafts (ISO 9650-1)

Liferafts designed for long voyages or cruises when gusts of wind can be expected, together with exceptional wave height (excluding abnormal conditions such as hurricanes).

ISO 9650-1 liferafts are classified in 2 groups (A and B) to reflect the temperature conditions in the sailing area :

- **Group A** : liferafts designed to inflate in an environment temperature of -15°C to +65°C ; they feature an insulating double floor.
- **Group B** : liferafts designed to inflate in an environment temperature of 0°C to +65°C ; they feature a single floor.

Liferafts are equipped with 2 types of survival kits, depending on how long the victim is likely to spend in his raft waiting to be rescued :

- **Emergency kit** : rescue forces expected after 24 hours.
- **Standard kit** : rescue forces expected within 24 hours.

ISO 9650-2 Coastal navigation : type II liferafts (ISO 9650-2)

Liferafts designed for sailing in areas where moderate conditions are expected, such as coastal waters, bays, estuaries, rivers and lakes.

ISO 9650-2 liferafts are designed to inflate in an environment temperature of 0°C to +65°C and feature a single floor. They come with a standard survival kit.

Type	ISO 9650-1	ISO 9650-2
Use	OFFSHORE, BLUE WATER	COASTAL AREA
Capacity (min/max)	4 to 12 persons	4 to 10 persons
Max. launching height	6 metres	4 metres
Inflation temperature	• Group A : -15°C to +65°C • Group B : 0°C to +65°C	0°C to +65°C
Bottom	• Gr. A : Insulating double floor • Gr. B : Single floor	Single floor
Free-board	250 mm (4 pers) 300 mm (> 4 pers)	200 mm (4 pers) 250 mm (> 4 pers)
Inside area / person	0.372 m ²	0.250 m ²
Buoyancy / person	96 litres	82 litres
Canopy	Deploys automatically	Deploys manually
Outside light	4.3 cd	0.75 cd
Retro-reflective tapes	1500 cm ²	1500 cm ²
Survival kit	Emergency > 24 h / Standard < 24 h	Standard

The ISO 9650 standard defines the performance level in terms of inflation, launching, resistance, buoyancy, interior space and emphasizes particularly :



• Boarding

Plastimo has developed a reversible ladder and an inside grab handle to ease embarking.

This system allows the victim to hoist himself up on the ladder and then topple easily into the liferaft. Should the liferaft inflate upside down, the boarding ladder simply reverts, to allow the victim to pull himself on the capsized liferaft and thus making it easier to turn over the raft in its natural position.

On ISAF models, this ladder system is combined with a boarding ramp.



• Stability

Large number and volume of ballast pockets (220 litres minimum) provide improved stability.

• Visibility

4.3 cd SOLAS outside light on ISO 9650-1 and 0.75 cd on ISO 9650-2 ;
1500 cm² retro-reflective tapes.
For optimum visibility, Plastimo liferafts are constructed with vibrant yellow buoyancy tubes and fluorescent orange canopy.

