

# Water Safety (Incorporating Life Jackets and Buoyancy Aids)



Item Code FS120603 March/07 Edition no7

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## Introduction

This is the seventh edition of the factsheet, which updates that coded FS120603, dated Aug 05.

Information regarding waterborne diseases and immersion into water can be found in factsheet FS120629 Water Safety (Waterborne disease and immersion), dated June/05.

Further editions may be issued in the light of experience from this edition.

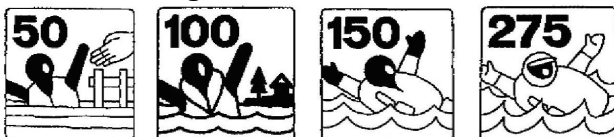
All changes from the fourth edition are either shown with a sideline if text or shaded if in a table.

## General

From July 1995 suppliers have only been allowed to sell lifejackets and buoyancy aids that have been tested to European specifications and carry the CE mark of approval. The new International Standards Organisation (ISO) standards will replace this.

There is no requirement for Members of The Scout Association to replace properly maintained and tested lifejackets and buoyancy aids. All lifejackets and buoyancy aids used by Members of The Scout Association must conform to one of the following standards and be marked accordingly.

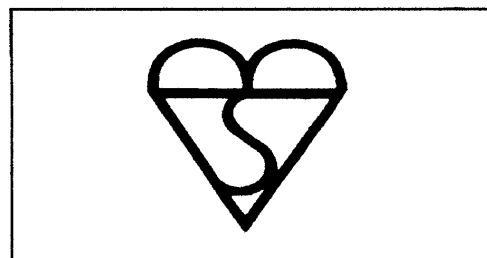
## ISO Label diagrams



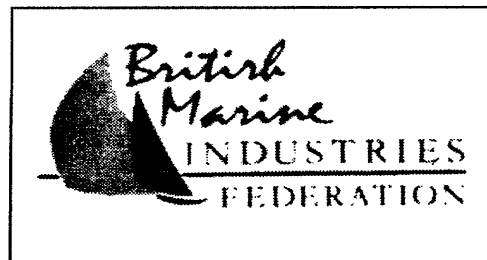
European standard for life jackets and Buoyancy aids



British standard for life jackets



British Marine Industry Federation for buoyancy aids



British Canoe Manufacturers Association for buoyancy aids



### **CE and ISO standards explained**

The CE and ISO standards use Newtons as the form of measurement. A Newton is a measured unit of force. 10 Newtons are approximately equal to 1 kg (2.2 lbs) of buoyancy. The CE and ISO standards cover four levels of minimum buoyancy performance. The higher the Newton number the higher the buoyancy rating. The buoyancy rating quoted is for adult size only. Smaller sizes will have proportionally less buoyancy.

#### **Level 50– Buoyancy Aid**

CE 50 Newton (11lbs buoyancy)

EN393 ISO 12402-5

- Only suitable for competent swimmers.
- Sheltered water used where help is close at hand.
- Only provides support to conscious people who can help themselves.
- Inferior in performance to life jackets or the previous BMIF Standard for Buoyancy aids.

#### **Level 100– Buoyancy Aid (Lifejacket)**

CE 100 Newton (23lbs buoyancy)

EN395 ISO 12402-4

- Suitable for swimmers.
- Increased buoyancy for use in general inshore conditions.
- Gives a reasonable assurance of safety from drowning in relatively calm waters.
- Not guaranteed to self-right an unconscious user wearing waterproof clothing and should not be expected to protect the airway of an unconscious person in rough water.
- Adult sizes have greater buoyancy than approved buoyancy aids previously seen in the United Kingdom.
- Classed as a buoyancy aid in the Great Britain and a life jacket in Europe.

#### **Level 150– Lifejacket**

CE 150 Newton (33lbs buoyancy)

EN396 ISO 12402-3

- Suitable for swimmers and non-swimmers.
- For use in all but most severe conditions.
- Equivalent performance to existing United Kingdom approved life jackets.
- Will give reasonable assurance of safety from drowning to a person not fully capable of helping themselves.
- May not immediately self-right an unconscious user wearing heavy waterproof clothing.

#### **Level 275– Lifejacket**

CE 275 Newton (62lbs buoyancy)

EN399 ISO 12402-2

- A high performance device for offshore and severe conditions, when maximum protection is required or where heavy waterproof clothing is worn.
- Has sufficient buoyancy to counteract the effect of trapped air in clothing.
- This type is new to the leisure market but similar life jackets have been available for industrial applications.
- Gives improved assurance of safety from drowning to people who are not able to help themselves.
- While they cannot be guaranteed to self-right an unconscious user wearing heavy waterproofs, the buoyancy they provide should ensure they will in the great majority of cases.

#### **Maintenance**

It is important that all lifejackets or buoyancy aids are repaired as necessary. They should be independently inspected in accordance with County or District arrangements. If there is any doubt, the advice of the Assistant County Commissioner (Water Activities) or County or District Water Activity Adviser should be sought.

It is important that any damage to the outer skin of the lifejacket or buoyancy aid is repaired immediately. Delays will only compound the damage and possibly damage the internal buoyancy material or air chambers. The annual inspection should check for any damage and for standard of repairs, particularly to stitching and zips.

A simple test for a lifejacket or buoyancy aid is to hang on an appropriate weight, squeeze out all the air and see if it floats. If it does float it is OK. If it fails to float it needs replacing. (See chart on page 7)

It is also recommended that all life jackets and buoyancy aids be individually marked with an identification system and that a record be kept of the date of purchase, any repairs and the dates of the annual inspections. This will assist with the long term planning for renewal and the budget implications associated with such renewals.

#### **Lifejacket or Buoyancy Aid**

Where the use of a buoyancy aid is specified by The Scout Association, a lifejacket may be substituted but not *vice versa*. Where a CE and ISO standard is specified, a higher specification may be substituted but not *vice versa*.

#### **Safety notes**

All garments should be worn correctly in accordance with the manufacturer's instructions.

Lifejackets are no substitute for proper discipline, correct training, good organisation, use of correct facilities, qualified leadership and correct briefing are paramount for water safety.

#### **Lifejacket and Buoyancy Aid requirements**

The chart contained in page 4 indicates the minimum level of standard of buoyancy aid or lifejacket which must be worn, or carried, when undertaking activities within The Scout Association.

Where a CE /ISO 50 Newton standard buoyancy aid or CE/ISO 150 Newton standard lifejacket is stipulated it is recommended that the lifejacket or buoyancy aid should be tailored to the size and weight of the person undertaking the activity.

Where possible, it is recommended that an approved CE or ISO lifejacket or buoyancy aid tailored for the activity (windsurfing, personal watercraft, rowing etc) should be worn.

The Permit holder leading or supervising the activity may, at any time, insist on a stricter requirement than those listed.

A Permit holder who holds BCU Competition Coach Award may apply BCU standards for competition training and events provided he or she is present for the activities on water for which his or her qualifications are valid

Lifejackets are to be worn in all boats when there is low visibility.

#### **Weights for Buoyancy Aid Testing – 50N Standard**

	Minimum buoyancy	Lead weight	Iron or steel weight	Cast iron weight
Weights can be manufactured locally using this chart.  (If you wish to use other metal, please contact the County Water Adviser for values).	50N	5.5kg	5.7kg	5.8kg
	45N	4.9kg	5.2kg	5.2kg
	40N	4.4kg	4.6kg	4.6kg
	35N	3.8kg	4.0kg	4.1kg

Scout water classification	C	B1	B2	B2 (Non tidal)	B3	A
Bell Boating / Canoeing / Kayaking	Level 50 Buoyancy aids to be worn					
Dinghy Sailing (open craft under 20') See note ii	Level 50 Buoyancy aids to be worn			Level 100 Buoyancy aids to be worn		
Dragon Boats See note vi	Level 50 Buoyancy aids to be worn					
Kite Surfing	Level 50 Buoyancy aids to be worn			Level 150 Lifejackets to be worn		
Motor Cruising See note vii	Level 50 Buoyancy aids to be carried			Level 150 Lifejackets to be carried		
Narrow Boating	Level 50 Buoyancy aids to be carried			Level 150 Lifejackets to be carried		
Offshore Sailing See notes vii and viii	Level 150 Lifejackets to be carried					
Personal Watercraft	Level 50 Buoyancy aids to be worn			Level 150 Lifejackets to be worn		
Powerboat (Planing) See note v	Level 150 Lifejackets to be worn					
Powerboat (Displacement) See note vii	Not Mandatory	Level 50 Buoyancy aids to be carried		Level 150 Lifejackets to be carried	Level 150 Lifejackets to be worn	
Pulling Boats (small)	Level 50 Buoyancy aids to be worn			Level 150 Lifejackets to be worn		
Pulling Boats (large) See vii	Not Mandatory	Level 50 Buoyancy aids to be carried		Level 150 Lifejackets to be carried		
Rafting (Traditional and White water) See note iv	Not Mandatory	Level 50 Buoyancy aids to be worn		Level 150 Lifejackets to be worn		
Rowing / Sculling	Level 150 Lifejacket to be worn					
Water Skiing	Level 50 Buoyancy aid to be worn			Level 150 Lifejackets to be worn		
Windsurfing See note iii	Level 50 Buoyancy aids to be worn			Level 100 Buoyancy aids to be worn		
Safety Boats See note v	Level 50 Buoyancy aids to be worn			Level 150 Lifejackets to be worn		

- **NOTE i:** For definitions of each activity please refer to the activity factsheet for each activity.
- **NOTE ii:** In certain capsize situations with a low boomed sailing dinghy, it is possible for the collar of a lifejacket to cause the wearer to become trapped under the sail. All sail people should be aware of this problem and be ready to offer quick assistance in the event of such a problem.
- **NOTE iii:** When paddling or board sailing on B3 or A Class Tidal Waters, all Members of the Movement must wear an approved buoyancy aid of the type with no inherent buoyancy capable of inflation to 150 Newton or a lifejacket with inherent buoyancy and capable of inflation to full 150 Newton buoyancy.
- **NOTE iv:** When white water rafting in rubber rafts on inland water specification B3 or A, a buoyancy aid should be worn for added protection in the event of being ejected into the moving water.
- **NOTE v:** When operating as a safety boat the category refers to fast craft, typically rigid inflatable or dory, this does not include displacement boats used for general escort duty.  
  
Such safety boats should have minimum of 2 of crew and a spare dead mans key on board.
- **NOTE vi:** When actually racing under the auspices of the British Dragon Boat Racing Association the requirement to wear a buoyancy aid may be relaxed for the paddlers. The drummer and the steersman must wear a buoyancy aid at all times.
- **NOTE vii:** Where lifejackets are to be carried, they should be worn as directed by the permit holder. This decision should take into consideration the weather and water conditions, local hazards, the age, ability and experience of the crew.
- **NOTE viii:** Safety harnesses should be worn during the hours of darkness and at the direction of the permit holder.