

# DIN EN 13138-1:2015-02 (E)

## Buoyant aids for swimming instruction - Part 1: Safety requirements and test methods for buoyant aids to be worn

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		5
1	Scope .....	7
2	Normative references .....	7
3	Terms and definitions .....	7
4	Classification .....	9
5	Safety Requirements .....	9
5.1	General .....	9
5.2	Buoyancy .....	10
5.2.1	Buoyancy characteristics of the complete device .....	10
5.2.2	Residual buoyancy .....	10
5.3	Design, fit and positioning .....	11
5.3.1	Adjustability - Class B devices .....	11
5.3.2	Buckles, zippers and other fixings .....	11
5.3.3	Retention of function .....	11
5.3.4	Innocuousness .....	12
5.4	Entire assembly and components .....	12
5.4.1	Integrity of the entire assembly of worn devices .....	12
5.4.2	Thread .....	13
5.4.3	Valves, stoppers and other protruding parts .....	13
5.5	Materials - mechanical properties .....	13
5.5.1	Seam strength and durability of inflatable devices .....	13
5.5.2	Resistance to puncturing .....	13
5.5.3	Resistance of foam and other inherent buoyant materials to compression .....	13
5.6	Materials and markings .....	13
5.6.1	General .....	13
5.6.2	Resistance to chlorinated salt water .....	14
5.6.3	Resistance of the markings to saliva .....	14
5.6.4	Resistance of the markings to perspiration .....	14
5.6.5	Adhesion of markings .....	14
6	Test methods .....	14
7	Warnings and markings .....	15
7.1	General .....	15
7.2	Warnings and markings on the product .....	15
7.3	Information supplied by the manufacturer .....	16
7.4	Consumer information at the point of sale .....	16
Annex A (normative) Procedures for testing resistance of markings to saliva .....		18
Annex B (normative) Procedures for testing efficiency of valves of inflatable devices .....		19
Annex C (normative) Security of the pressure release of buckles .....		20

<b>Annex D (normative) Procedures for testing adjustability, retention of function, edges, corners and points by assessment panel .....</b>	<b>21</b>
<b>D.1 General .....</b>	<b>21</b>
<b>D.2 Assessment of Risks .....</b>	<b>21</b>
<b>D.3 Re-assessment of instructions supplied with the device .....</b>	<b>21</b>
<b>Annex E (normative) Test procedures for seam strength and durability of inflatable devices .....</b>	<b>24</b>
<b>Annex F (normative) Test procedures for determining the puncture resistance of inflatable devices .....</b>	<b>25</b>
<b>Annex G (normative) Test procedures for integrity of the entire assembly .....</b>	<b>26</b>
<b>G.1 Test description .....</b>	<b>26</b>
<b>G.2 Test parameters .....</b>	<b>26</b>
<b>Annex H (informative) Significant changes between this document and the previous edition of Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC .....</b>	<b>29</b>
<b>Bibliography .....</b>	<b>30</b>