

DIN EN ISO 25649-1:2018-04 (E)

Floating leisure articles for use on and in the water - Part 1: Classification, materials, general requirements and test methods (ISO 25649-1:2017)

Contents	Page
European foreword	4
Foreword	5
Introduction	6
1 Scope	8
2 Normative references	8
3 Terms and definitions	9
4 Classification and criteria to distinguish floating leisure articles from aquatic toys	11
5 General safety requirements and test methods related to all classes	13
5.1 General	13
5.2 Body entrapment	13
5.2.1 General	13
5.2.2 Requirements on body entrapment	15
5.2.3 Test procedure	15
5.2.4 Depths of gaps and openings	15
5.2.5 Method of measuring	16
5.3 Torso entrapment on safety line with regard to children	16
5.3.1 Requirements	16
5.3.2 Test method	16
5.4 Accessible protruding parts causing entanglement	16
5.4.1 Requirements	16
5.4.2 Test method	16
5.5 Human subject testing	17
5.5.1 General	17
5.5.2 Test panel	17
5.5.3 Assessment panel	18
5.5.4 Positioning and posture of test subjects for testing floating stability (if applicable)	18
5.5.5 Basic test postures	18
5.6 Design working pressure	19
5.6.1 Requirements	19
5.6.2 Test method	19
5.7 Load bearing components	19
5.7.1 Requirements	19
5.7.2 Test method	19
5.8 Towing device	19
5.8.1 Requirements	19
5.8.2 Test method	19
5.9 Valves and valve adapters	19
5.9.1 Requirements	19
5.9.2 Test method	20
5.9.3 Numbering of air chambers	20
5.10 Edges, corners and points	20
5.10.1 Requirements	20
5.10.2 Test method	20
5.11 Shearing and crushing points	20
5.11.1 Requirements	20
5.11.2 Test method	21

5.12	Strength of the hull and test conditions	21
5.12.1	Requirements	21
5.12.2	Pressure test.....	21
5.12.3	Heat test (not applicable to Class D devices)	22
5.12.4	Air tightness test for inflatables made from unsupported material.....	22
5.12.5	Air tightness test for inflatables made from reinforced or fabric covered material	23
5.13	Buckles and other fixings.....	23
5.13.1	Requirements	23
5.13.2	Test methods	23
6	Material requirements and test methods.....	23
6.1	General.....	23
6.1.1	Requirements	23
6.1.2	Test method.....	23
6.2	Chemical requirements for materials making up the hull, unsupported or reinforced.....	24
6.2.1	General.....	24
6.2.2	Resistance to mineral oil.....	24
6.2.3	Resistance to chlorinated salt water.....	24
6.3	Physical requirements.....	24
6.3.1	Resistance to cold.....	24
6.3.2	Resistance to heat.....	24
6.4	Mechanical requirements of unsupported hull materials	25
6.4.1	General.....	25
6.4.2	Resistance to puncturing	25
6.5	Mechanical requirements for reinforced hull materials	25
6.5.1	General.....	25
6.5.2	Adhesion of coatings (if applicable).....	25
6.6	Other materials.....	26
6.6.1	Wood	26
6.6.2	Metal and synthetic material parts.....	26
6.7	Threads.....	26
6.7.1	Requirements	26
6.7.2	Test method.....	26
7	Durability of warnings and markings.....	26
7.1	Resistance to perspiration	26
7.1.1	Requirements	26
7.1.2	Test method.....	27
7.2	Resistance to chlorinated salt water	27
7.2.1	Colour fastness.....	27
7.2.2	Test liquid.....	27
7.2.3	Apparatus.....	27
7.2.4	Test method.....	27
7.3	Adhesion of markings	27
7.3.1	Requirements	27
7.3.2	Test method.....	27
7.4	Provision of repair means	27
	Annex A (normative) Templates	28
	Annex B (informative) Examples of openings	30
	Bibliography	36