

DIN EN ISO 12217-3:2016-03 (E)

Small craft - Stability and buoyancy assessment and categorization - Part 3: Boats of hull length less than 6 m (ISO 12217-3:2 015)

Contents	Page
European foreword.....	4
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered.....	5
Foreword.....	6
Introduction.....	8
1 Scope.....	9
2 Normative references.....	10
3 Terms and definitions.....	10
3.1 Primary.....	10
3.2 Downflooding.....	12
3.3 Condition and mass.....	13
3.4 Other definitions.....	15
4 Symbols.....	17
5 Procedure.....	18
5.1 Maximum load.....	18
5.2 Sailing or non-sailing.....	18
5.3 Tests to be applied.....	19
5.3.1 General.....	19
5.4 Alternatives.....	19
5.5 Variation in input parameters.....	19
6 Tests to be applied to non-sailing boats.....	20
6.1 General.....	20
6.2 Habitable non-sailing multihull boats.....	21
6.3 Downflooding.....	21
6.3.1 Requirements for downflooding openings.....	21
6.3.2 Downflooding height with maximum load.....	23
6.3.3 Downflooding height — outboard boats when starting.....	26
6.4 Recess size.....	26
6.4.1 Application.....	26
6.4.2 Simplified methods.....	27
6.4.3 Direct calculation method.....	28
6.5 Offset-load test.....	28
6.5.1 General.....	28
6.5.2 Simplified procedure for offset-load test.....	30
6.5.3 Full procedure for offset load-test.....	32
6.5.4 Procedure for gunwale load test.....	34
6.6 Heel due to wind action.....	35
6.6.1 General.....	35
6.6.2 Calculation.....	35
6.6.3 Requirement.....	35
6.7 Level flotation test.....	35
6.8 Basic flotation test.....	36
6.9 Capsize-recovery test.....	36
6.10 Detection and removal of water.....	37

7	Tests to be applied to sailing boats	37
7.1	General	37
7.2	Downflooding	38
7.3	Recess size	39
7.4	Flotation tests	39
	7.4.1 Level flotation test	39
	7.4.2 Basic flotation test	39
7.5	Capsize-recovery test	39
7.6	Knockdown recovery test	40
7.7	Wind stiffness test	41
	7.7.1 General	41
	7.7.2 Practical test	41
	7.7.3 Compliance by calculation	42
	7.7.4 Requirements	43
7.8	Inverted buoyancy	44
8	Safety signs	45
9	Application	45
9.1	Deciding the design category	45
9.2	Meaning of the design categories	45
	Annex A (normative) Full method for required downflooding height	46
	Annex B (normative) Methods for calculating downflooding angle	49
	Annex C (normative) Method for flotation tests	51
	Annex D (normative) Flotation material and elements	56
	Annex E (normative) Calculation method for basic flotation requirement	58
	Annex F (normative) Information for owner's manual	60
	Annex G (informative) Summary of requirements	65
	Annex H (informative) Worksheets	67
	Annex I (informative) Illustration of recess retention level	84
	Bibliography	85