4.3.3 LIFEBOAT BUOYANT MATERIAL

EVALUATION AND TEST REPORT

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4.3.3 LIFEBOAT BUOYANT MATERIAL

EVALUATION AND TEST REPORT

Manufacturer	
Type/Model	
Date of Approval	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

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		Manufacturer	:	Date:	Time:	
Lifeboat Buoyant Mater	rial	Model:		Surveyor:		
Lot/Serial Nun			mber:	Organization:		
4.3.3.1 Submitted	d drawings	s, reports and c	locuments			
			Submitted drawin	gs and documents		Status
Drawing No.	Revision	n No. & date		Title of drawing		Status
			Submitted report	s and documents		G4 4
Report/Document No.	Revision	n No. & Date		Title of report / document		Status
			Maintenance Manual -			
			Operations Manual -			
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4.3.3.1.1 Quality Assurance	Regulations: - SOLAS III/4
Except where all appliances of a particular type are required by Chapter III of the International Convention for the Safety of Life at Sea, 1974, as amended, to be inspected, representatives of the Administration should make random inspections of manufacturers to ensure that the quality of life-saving appliances and materials used comply with the specification of the approved prototype life-saving appliance. Manufacturers should be required to institute a quality control procedure to ensure that life-saving appliances are provided to the same standard as the prototype life-saving appliance approved by the Administration and to keep records of any production tests carried out in accordance with the Administration's instructions.	Quality Assurance Standard Used: - Quality Assurance Procedure: - Quality Assurance Manual: - Description of System.
	Quality Assurance System acceptable Yes/No Comments/Observations

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TEST ITEMS				R	EFERE	NCES				REMARKS
CONDITIONING	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	
SEQUENCE										70/23/Add.1
Measure dimensions (4.3.3.2)	A	A	A	A	A	A	A	A	A	
Temperature cycling test (4.3.3.3)	В	В	В							
Measure dimensions at end of temperature cycling test. (4.3.3.3)	С	С	С							
Examination of internal structure (4.3.3.4)	D									
Measure initial buoyancy		D	D	D	D	D	D	D	D	
High octane petroleum spirit (4.3.3.6) & (4.3.3.11)			Е					Е		
Crude oil (4.3.3.8)					Е					
Marine fuel oil (Grade C) (4.3.3.9)						Е				
Diesel oil (Grade A) (4.3.3.10)							Е			
Kerosene (4.3.3.12)									Е	
Measure dimensions			F		F	F	F	F	F	
Fresh water absorption test (4.3.3.5) & (4.5.2.7)		G	G	G	G	G	G	G	G	
Measure dimensions		Н	Н	Н	Н	Н	Н	Н	Н	
Measure final buoyancy		I	I	I	I	I	I	I	I	

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4.3.3.2 Measure Dimensions	Regulations: LSA Code 1	Regulations: LSA Code 1.2; MSC.81(70) 1/6.2 and 2.7			
Test Procedure	Acceptance Criteria	Significant Test Data			
Measure the dimensions of the specimens		1X 11X			
The specimens should be at least 300 mm square and be of the same thickness as used in the lifejacket.		2XX 12X 3XX 13XX			
птејаскет.		3 X X 4 X X 14 X X			
		5XX 15XX			
		6XX 16XX			
		7X 17 X			
		8X 18 X			
		9X 19 X X			
		10 X X 20 X X			
		Passed Failed			
		Comments/Observations			

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Lifeboat Buoyant Material	Model:		Surveyor:	
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4.3.3.3 Temperature cyclin	g test		Regulations: LSA Code 1.2; M	SC.81(70) 1 /6.2.2 and 2.7.1
Test Procedure		Acceptano	ce Criteria	Significant Test Data
Six specimens should be subjected for 8 hours to surrounding temperatures of -30°C and +65°C. These alternating cycles need not follow immediately after each other and the following procedure, repeated for ten cycles is acceptable: An 8 h cycle at +65°C to be completed in one day; and the specimens removed from the warm chamber that same day and left exposed under ordinary room conditions until the next day; and The specimens removed from the cold chamber that same day and left exposed under ordinary room conditions until the next day.		The dimensions of the specimens sten-cycle period. The specimens should not show any sign of exmechanical qualities.		Dimensions before test Dimensions after test 1 X X X X 2 X X X X X
4.3.3.4 Examination of inte	rnal structur	e	Regulations: LSA Code 1.2; MS	SC.81(70) 1 /6.2.2, 2.7.1 and 2.7.2
Test Procedure		Acceptano	ce Criteria	Significant Test Data
Following the temperature cycling to specimens should be cut open and e		Neither of the two specimens cu internal change of structure.	nt open should show any sign of	Specimen No. 1 Internal condition (Passed/Failed) Specimen No. 2 Internal condition (Passed/Failed) Comments/Observations

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4.3.3.5 Temperature cycling and Water	absorption test	Regulations: LSA Code 1.2; MS	SC.81(70) 1 /2.7.1, 2.7.8 & 6	5.2.2	
Test Procedure	Acceptano	ee Criteria	Significant Test Data		
The test should be carried out on two specimens which have been subjected to the temperature cycling test. The test should be carried out in fresh water and the specimens should be immersed for a period of seven days under a 1.25 m head of water. The results should state the mass in kilograms which each specimen could support out of the water after one and seven days immersion (the selection of a test method suitable for obtaining this result directly or indirectly is left to the discretion of the testing authority).	The reduction of buoyancy should show no signs of damage surdissolution or change of mechanic	ch as shrinking, cracking swelling,	Dimensions before test 3 X X 4 X X % change in dimensions 3 % Buoyancy after 1 day 3 4 % change in buoyancy 3 % Comments/Observations	Dimensions after testXXXX	
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	Manufacture	er:	Date:	Time:	
Lifeboat Buoyant Material	Model:		Surveyor:		
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4.3.3.6 Temperature cyc absorption test	eling, high oct	ane petroleum spirit & water	Regulations: LSA Code 1.2; M	ISC.81(70) 1 /2.7.1, 6.2.2 & 6.2	.5
Test Procedure		Acceptano	ce Criteria	Significant	Test Data
The test should be carried out on which have been subjected to the cycling test followed by be horizontally for a period of 24 hr head of high octane petroleum stroom temperature. After completing the above the carried out in fresh water and should be immersed for a period under a 1.25 m head of water. It should be recorded at the beginn these tests. The results should state the mass which each specimen could supply water after one and seven days is selection of a test method suitably this result directly or indirectly discretion of the testing authority.	test should be the specimens of seven days The dimensions and end of the specimens of the seven days the dimensions of the seven days the dimensions of the seven days the dimensions of the seven days the dimension of the seven days the dimension of the seven days the seven da	The reduction of buoyancy should. The specimens should show no scracking swelling, dissolution or of	sign of damage such as shrinking,	Dimensions before test 5 X X 6 X X % change in dimensions 5 % Buoyancy after 1 day 5 6 % change in buoyancy 5 % Comments/Observations	XX
				Passed Fa	ailed

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4.3.3.7 Tests for water absorption	4.3.3.7 Tests for water absorption Regulations: LSA Code 1.2; MS		MSC.81(70) 1 / 6.2.2 & 6.2.8		
Test Procedure	Acceptance Criteria		Acceptance Criteria Significant Test Data		Test Data
The test should be carried out on two specimens as supplied. The dimensions should be recorded at the beginning and end of these tests. The test should be carried out in fresh water and the specimens should be immersed for a period of seven days under a 1.25 m head of water. The results should state the mass in kilograms which each specimen could support out of the water after one and seven days immersion (the selection of a test method suitable for obtaining this result directly or indirectly is left to the discretion of the testing authority).	The reduction of buoyancy should should show no sign of damage suddissolution or change of mechanic	I not exceed 5%. The specimens ch as shrinking, cracking swelling,	Dimensions before test 7 X X 8 X X % change in dimensions 7 % Buoyancy after 1 day 7 8 % change in buoyancy 7 % Comments/Observations	Dimensions after test	
			Passed Fa	iled	

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	Manufacture	er:	Date:	Time:	
Lifeboat Buoyant Material	Model:		Surveyor:		
	Lot/Serial N	Tumber:	Organization:		
4.3.3.8 Crude oil test			Regulations: LSA Code 1.2;	MSC.81(70) 1 /6.2.2, 6.2.3.1, 6.2.	7 & 2.7.8
Test Procedure		Acceptan	ce Criteria	Significant	Test Data
Two specimens of the mater		The reduction of buoyancy must r	not exceed 5%.	Dimensions before test	Dimensions after test
immersed in crude oil for a per under a 100 mm head. The speci		The two specimens should show no	o sign of damage such as shrinking	9XX	XX
tested as supplied by the manufacturer and at		cracking, swelling, dissolution or		10 X X	XX
normal room temperature (approx	ximately 18°C).				
After completing the above imm specimens should be immersed				% change in dimensions	
seven days under a 1.25 m head of				9%	10%
The results should state the ma				Buoyancy after 1 day	Buoyancy after 7 day
which each specimen could sup water after one and seven days	immersion (the			9	
selection of a test method suitab this result directly or indirectly				10	
discretion of the testing authority	<i>i</i>).			% change in buoyancy	
					4.0
				9%	10%
				Comments/Observations	
				Passed Fa	iled

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4.3.3.9 Marine fuel oil test (Grade C)*	Regulations: LSA Code 1.2; M	SC.81(70) 1 /6.2.2, 6.2.3.2, 6.2.7 & 2.7.8		
Test Procedure	Acceptance Criteria	Significant Test Data		
Two specimens of the material should be immersed in marine fuel oil (grade C) for a period of 14 days under a 100 mm head. The specimens should be tested as supplied by the manufacturer and at normal room temperature (approximately 18°C).	The reduction of buoyancy must not exceed 5%. The specimen should show no sign of damage such as shrinking, cracking, swelling, dissolution or change of mechanical qualities.	Dimensions before test 11 X X X X		
After completing the above immersion the two specimens should be immersed for a period of seven days under a 1.25 m head of water. The results should state the mass in kilograms which each specimen could support out of the water after one and seven days immersion (the selection of a test method suitable for obtaining this result directly or indirectly is left to the discretion of the testing authority).		% change in dimensions 11 % Buoyancy after 1 day Buoyancy after 7 day 11 12 12 % change in buoyancy 11 Comments/Observations		
* Refer to ISO standards ISO 8216 and ISO 8217 – Petroleum products.		Passed Failed		

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	Manufacture	er:	Date:	Time:	
Lifeboat Buoyant Material	Model:		Surveyor:		
	Lot/Serial N	Tumber:	Organization:		
4.3.3.10 Diesel oil test (Gra	ade A)*	Reg	gulations: LSA Code 1.2; M	(SC.81(70) 1/6.2.2, 6.2.3.3, 6.2. ²	7 & 2.7.8
Test Procedure Acceptar		Acceptance Cri	teria	Significant	Test Data
Two specimens of the mater immersed in diesel oil (grade A) 14 days under a 100 mm head. should be tested as supplied by the and at normal room temperature 18°C) After completing the above immersed is seven days under a 1.25 m head of the results should state the mass which each specimen could supply water after one and seven days is selection of a test method suitably this result directly or indirectly discretion of the testing authority.	for a period of The specimens are manufacturer (approximately mersion the two for a period of of water. ss in kilograms port out of the immersion (the le for obtaining vis left to the	The reduction of buoyancy must not exc The specimen should show no sign of cracking, swelling, dissolution or chang	f damage such as shrinking,	Dimensions before test 13 X X 14 X X % change in dimensions 13 % Buoyancy after 1 day 13 14 % change in buoyancy 13 % Comments/Observations	Dimensions after test X X X X 14% Buoyancy after 7 day 14%
* Refer to ISO standards ISO 8216				Passed Fa	iled

- Petroleum products.

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4.3.3.11 High octane petroleum spirit test	st Regulations: LSA Code 1.2; MSC.81(70) 1 /6.2.2, 6.2.3.4, 6.2.7 & 2.7.8				
Test Procedure	Acceptance Criteria	Significant Test Data			
Two specimens of the material should be immersed in high octane petroleum spirit for a period of 14 days under a 100 mm head. The specimens should be tested as supplied by the manufacturer and at normal room temperature (approximately 18°C). After completing the above immersion the two specimens should be immersed for a period of seven days under a 1.25 m head of water. The results should state the mass in kilograms which each specimen could support out of the water after one and seven days immersion (the selection of a test method suitable for obtaining this result directly or indirectly is left to the discretion of the testing authority).	Acceptance Criteria The reduction of buoyancy must not exceed 5%. The specimen should show no sign of damage such as shrinking, cracking, swelling, dissolution or change of mechanical qualities.	Significant Test Data Dimensions before test Dimensions after test 15 X X			
		Passed Failed			

Failed

Passed ____

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	Manufacture	er:	Date:	Time:_		
Lifeboat Buoyant Material	Model:		Surveyor:			
	Lot/Serial N	Jumber:	Organization:			
4.3.3.12 Kerosene test			Regulations: LSA Code 1.2; MSC.81(70) 1 /6.2.2, 6.2.3.5, 6.2.7 & 2.7.8			
Test Procedure		Acceptance Criteria		Significant Test Data		
Two specimens of the materi immersed in kerosene for a periounder a 100 mm head. The specimens tested as supplied by the manufacture (approximate) and the specimens are specimens should be immersed for seven days under a 1.25 m head of the results should state the mass which each specimen could supply water after one and seven days in selection of a test method suitable this result directly or indirectly discretion of the testing authority)	od of 14 days nens should be acturer and at imately 18°C). ersion the two for a period of f water. It is in kilograms fort out of the mmersion (the efor obtaining is left to the	The reduction of buoyancy must not specimen should show no sign of diswelling, dissolution or change of	ot exceed 5%.	Dimensions before test 17 X X 18 X X % change in dimensions 17 % Buoyancy after 1 day 17 18 % change in buoyancy 17 % Comments/Observations	Dimensions after testXX	