



Certificate number: SMS.LAB.320/144124/A.0

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RECOGNITION OF TEST LABORATORY

SPECTRUMLABS S.A.
PIRAEUS - GREECE

Summary of the range of the recognition which is detailed in the subsequent page(s):

Materials testing, Ballast Water analysis, Firefighting Foams analysis

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the testing facilities and associated quality procedures related to the range of the recognition.

This certificate will expire on: 22 Jun 2030

For Bureau Veritas Marine & Offshore,
At BV PIRAEUS, on 17 Jun 2026,
SPYROS KONTOULIS

This certificate was created electronically and is valid without signature



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BV Mod. Ad.E 686 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

Type of test	Test standard	Test witnessing requirements	Remark
Ballast water-Determination of Chlorine Dioxide	Method SM 4500 CLO ₂ E	Tests to be witnessed -as practicable-at each periodical audit	
Ballast water-Determination of Chlorite & Chlorate concentration	EPA Method 300.1	Tests to be witnessed -as practicable-at each periodical audit	
Ballast water-Determination of concentration of viable organisms from 50 µm and above and 10 ÷ 50 µm	BWM.2/Circ.70, BWM.2/Circ.42, ASTM D4012	Tests to be witnessed -as practicable-at each periodical audit	
Ballast water-Determination of total residual oxidant (TRO) as TRC	ISO 7393-2	Tests to be witnessed -as practicable-at each periodical audit	
Ballast water-Enumeration of micro-organisms	EN ISO 6222, ISO 9308-1, ISO 7899-2	Tests to be witnessed -as practicable-at each periodical audit	
Firefighting foams in liquid form-Determination of exp.ratio, drainage time, sedimentation, chem.stabil	MSC.1/ CIRC.1312 or MSC/CIRC.670	Tests to be witnessed -as practicable-at each periodical audit	
Firefighting foams in liquid form-Determination of PFAS (PFOS, PFNA, PFOA, PFHxS)	In house method T.M. 118 based on ISO 21675:2019	Tests to be witnessed -as practicable-at each periodical audit	
Firefighting foams in liquid form-Determination of pH	ISO 10523	Tests to be witnessed -as practicable-at each periodical audit	
Firefighting foams in liquid form-Fire test	SP Method 2580	Tests to be witnessed -as practicable-at each periodical audit	
Firefighting foams in powder form-Determination of foam properties	EN 615	Tests to be witnessed -as practicable-at each periodical audit	
Materials-Aluminum/Aluminum alloys-Determination of Cd, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Si, Sn, Zn, Ti, V	ASTM E1251	Tests to be witnessed -as practicable-at each periodical audit	
Materials-Bend test	EN ISO 5173, 7438, 15630-1, ASTM E290, EN 10080, ASME IX/QW160	Tests to be witnessed	
Materials-Copper and copper alloys-Determination of Al, As, Co, Cr, Fe, Mn, Ni, P, Pb, S, Sb, Si, Sn, Zn, Ag, Bi	EN 15079	Tests to be witnessed -as practicable-at each periodical audit	
Materials-Drift-expanding test in metallic tubes	EN ISO 8493, ASTM A370	Tests to be witnessed -as practicable-at each periodical audit	
Materials-Flattening test in metallic tubes	EN ISO 8492, ASTM A370	Tests to be witnessed	
Materials-Hardness test (Vickens method)	EN ISO 6507-1, 9015-1, ASTM E92	Tests to be witnessed -as practicable-at each periodical audit	
Materials-Hydrostatic testing of metallic materials (tubes, valves)	EN 12266-1, EN 10255, EN 1074-1	Tests to be witnessed	
Materials-Impact test (Charpy method)	EN ISO 9016, EN ISO 148-1, ASME IX/QW170	Tests to be witnessed	
Materials-Low alloy steel-Determination of C, Si, Mn, P, S, Cr, Ni, Mo, Cu	ASTM E415	Tests to be witnessed -as practicable-at each periodical audit	

Type of test	Test standard	Test witnessing requirements	Remark
Materials-Macroscopic and Microscopic examination	EN ISO 1763, ISO 6520-1, 15614-2, ASTM E1351, ASME IX/QW183	Tests to be witnessed -as practicable- at each periodical audit	
Materials-Tensile test	EN ISO 6892-1,15614-1,4136, 15630-1,5178, ASTM E8/M,EN 10080	Tests to be witnessed	
Materials/Glass-Bending strength test	ISO 1288-3	Tests to be witnessed -as practicable- at each periodical audit	
Materials/Glass-Punch test of toughened glass	ISO 614	Tests to be witnessed -as practicable- at each periodical audit	

2. LIMITATIONS

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to testing facilities and associated quality procedures in order to agree on appropriate actions.

SPECTRUMLABS S.A. has to carry out and report the tests in compliance with the relevant testing standard(s) and has to make the necessary arrangements to comply with the witnessing requirements agreed with Bureau Veritas Marine & Offshore.

SPECTRUMLABS S.A. has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. REMARKS

Nil.

*** END OF CERTIFICATE ***