

Hellenic Accreditation System



Annex F1/16 to the Certificate No. **65-5**

SCOPE of ACCREDITATION

of the

Analytical Testing Laboratories

of

SPECTRUMLABS S.A.

Materials / Products to be tested	Types of test / Properties to be measured	Applied methods / Techniques to be used
Non destructive tests		
Welds, metallic and cast materials	Magnetic particle inspection (YOKE).	ASME V: 2017, EN ISO 17638: 2016, ELOT EN 10228-1 E2: 2016, BS EN 1369: 2012
	Liquid penetrant inspection.	BS EN 3452-1: 2013 ASME V: 2017, ELOT EN 10228-2 E2: 2016, BS EN 1371-1: 2011
Welds, metallic and cast materials (cont)	Ultrasonic inspection.	EN ISO 17640: 2017, ASME V: 2017, ELOT EN 10228-3 E2: 2016, ELOT EN 10160: 1999, BS EN 14127: 2011
	Radiographic inspection (Sources: Ir-192, Se 75 and X-Rays)	EN ISO 17636-1:2013, ASME V: 2017
Welds, metallic materials	Visual examination for imperfections and dimensions.	ASME V: 2017, EN ISO 17637: 2016

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Mechanical tests		
Welds, metallic materials	Tensile test (Proof Strength not included).	EN ISO 6892-1: 2016, EN ISO 15614-1: 2017 EN ISO 4136: 2012
	Hardness test according to the Vickers method.	EN ISO 6507-1: 2018 (HV-10, HV-30), EN ISO 9015-1:2011
	Bend test.	ELOT EN ISO 5173/A1:2012
	Impact test according to the Charpy method	EN ISO 9016: 2012
Steel materials	In situ measurement of surface hardness	ASTM A956 / A956M – 17a
Welds, metallic and cast materials	Macroscopic and microscopic examination	ISO 17639: 2013, ISO 6520-1: 2007, ASTM E1351-01(2012)
Reinforced plastic composites	Determination of tensile properties	ELOT EN ISO 527-1 E2: 2012 ELOT EN ISO 527-4: 1999
	Determination of flexural properties	EAOT EN ISO 14125 A1:2012 ISO 178: 2010 + A1: 2013
	Determination of the textile glass and mineral fillet content	ELOT EN ISO 1172: 1998
Chemical tests		
1. Petroleum products	Determination of sulfur content by energy dispersive X-Ray fluorescence spectrometry.	ASTM D4294-16e1 ISO 8754: 2003 (2014)
	Determination of kinematic viscosity (and calculation of dynamic viscosity) of transparent and opaque petroleum products	ASTM D445-17a ISO 3104: 1994 (2007)
	Determination of total sediment by hot filtration	ISO 10307-1:2009 ASTM D 4870:2009(2014)
	Determination of total sediment by thermal ageing, TSP (Procedure A) and chemical ageing, TSA (Procedure B)	ISO 10307-2:2009 IP 390 ASTM D 4870:2009(2014)
	Determination of flash point - Pensky-Martens closed cup method for petroleum products	ASTM D93-16a ISO 2719: 2016
	Determination of CCAI (Calculated Carbon Aromaticity Index) for petroleum products	ISO 8217: 2017
	Determination of Density Oscillating U-tube method	ASTM D7042-16 ^{e2} ASTM D4052-16 ISO 12185: 1996
	Determination of water content by distillation	ASTM D95-13e1 ISO 3733: 1999
	Determination of Pour Point	ASTM D97-17b ISO 3016: 1994
	Determination of Al, Si, V, Ni, Fe, Na, Ca, Zn in residual fuel oil	IP 501 (2005)

Materials / Products to be tested	Types of test / Properties to be measured	Applied methods / Techniques to be used
1. Petroleum products (cont.)	Determination of ash	ISO 6245: 2001 ASTM D482-13
2. Low-alloy steel	Determination of C, Si, Mn, P, S, Cr, Ni, Mo, Cu.	ASTM E415: 2017
3. Water (drinking, surface)	Determination of pH.	ISO 10523: 2008 (2012)
	Determination of electrical conductivity.	ISO 7888: 1985 (2012)
	Determination of nitrate ion.	In house method Q.P. 4.9.8-OE3
	Determination of Turbidity	ISO 7027-1: 2016

Site of assessment: **Laboratory permanent premises, Efplias 49, Piraeus, Greece.**

Approved Signatories: **N. Hatzopoulos, E. Mante, I. Dimoulis, K. Mperketis, M. Koukouli, Ch. Drakakaki.**

This Scope of Accreditation replaces the previous one dated February 22nd , 2018.

The Accreditation Certificate No. **65-5**, to ELOT EN ISO/IEC 17025: 2005, is valid until 28.02.2022.

Athens, September 20th, 2018



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