

Date

Reference

2023-11-10

2022/1104

Scope of accreditation

Testing according to SS-EN ISO/IEC 17025:2018

Outokumpu Stainless AB, Avesta Works

Avesta

Accreditation number

1098

M42-ATLS Analyslaboratoriet

A000354-001

Chemical analysis

<i>Technical area</i>	<i>Parameter</i>	<i>Method</i>	<i>Technique</i>	<i>Measure</i>	<i>Material</i>	<i>Field</i>
Inorganic chemistry	Aluminium, Al	ASTM E1086-22, mod	OES	0,002 – 0,2 %	Steel	No
	Arsenic, As	ASTM 772;2021 mod.	XRF	0,005 – 0,09 %	Steel	No
	Bismut, Bi	Intern metod; 2236	GFAA	0,2 – 3 ppm	Steel	No
	Boron, B	ASTM E1086-22, mod	OES	0,0005 – 0,018 %	Steel	No
	Carbon, C	ASTM E 1019-18, mod	Combustion	0,002 – 0,3 %	Steel	No
		ASTM E1086-22, mod	OES	0,004 – 0,3 %	Steel	No
	Chromium, Cr	ASTM 772;2021 mod.	XRF	10 – 26 %	Steel	No
		SS-EN ISO 11885:2009/EPA Method 1971, mod	ICP-AES	> 0,05 mg/l	Waste water/Leach water	No
	Cobalt, Co	ASTM 772;2021 mod.	XRF	0,015 – 1,5 %	Steel	No
	Copper, Cu	ASTM 772;2021 mod.	XRF	0,02 – 3,7 %	Steel	No
	Iron, Fe	SS-EN ISO 11885:2009/EPA Method 1971, mod	ICP-AES	> 0,05 mg/l	Waste water/Leach water	No
	Lead, Pb	Intern metod; 2236	GFAA	0,1 – 10 ppm	Steel	No
	Manganese, Mn	ASTM 772;2021 mod.	XRF	0,1 – 8 %	Steel	No
	Molybdenum, Mo	ASTM 772;2021 mod.	XRF	0,01 – 6 %	Steel	No
		SS-EN ISO 11885:2009/EPA Method 1971, mod	ICP-AES	> 0,05 mg/l	Waste water/Leach water	No
	Nickel, Ni	ASTM 772;2021 mod.	XRF	0,03 – 36 %	Steel	No
SS-EN ISO 11885:2009/EPA Method 1971, mod		ICP-AES	> 0,05 mg/l	Waste water/Leach water	No	
Niob, Nb	ASTM 772;2021 mod.	XRF	0,005 – 1,0 %	Steel	No	

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<i>Technical area</i>	<i>Parameter</i>	<i>Method</i>	<i>Technique</i>	<i>Measure</i>	<i>Material</i>	<i>Field</i>
Inorganic chemistry	Nitrogen, N	ASTM E 1019-18, mod	Combustion	0,002 – 0,6 %	Steel	No
		ASTM E1086-22, mod	OES	0,004 – 0,3 %	Steel	No
	Oxygen, O	ASTM E 1019-18, mod	Combustion	0,0005 – 0,05 %	Steel	No
	Phosphorus, P	ASTM 772;2021 mod.	XRF	0,01 – 0,05 %	Steel	No
	Silicon, Si	ASTM 772;2021 mod.	XRF	0,1 – 3,2 %	Steel	No
	Sulfur, S	ASTM E 1019-18, mod	Combustion	0,001 – 0,1 %	Steel	No
		ASTM E1086-22, mod	OES	0,001 – 0,1 %	Steel	No
	Tin, Sn	ASTM 772;2021 mod.	XRF	0,005 – 0,10 %	Steel	No
	Titanium, Ti	ASTM 772;2021 mod.	XRF	0,005 – 1 %	Steel	No
	Tungsten, W	ASTM 772;2021 mod.	XRF	0,04 – 0,5 %	Steel	No
	Vanadium, V	ASTM 772;2021 mod.	XRF	0,006 – 0,45 %	Steel	No
Zinc, Zn	SS-EN ISO 11885:2009/EPA Method 1971, mod	ICP-AES	> 0,05 mg/l	Waste water/Leach water	No	
Water analysis	Conductivity	SS-EN 27888, utg 1	Electrode	1 – 1290 mS/m	Waste water/Leach water	No
	Fluoride	SS 028135, utg 1	Ion selective electrode	> 0,1 mg/l	Waste water/Leach water	No
	Hexavalent chromium	Std Methods 1971	Photometry	> 10 µg/l	Waste water/Leach water	No
	pH	SS-EN ISO 10523:2012	Electrode	6-12 pH-enheter	Waste water/Leach water	No
	Suspended solids	SS-EN 872:2005	Gravimetry	> 5 mg/l	Waste water/Leach water	No

Changes in the scope of accreditation are in bold.