OLYMPUS®

Your Vision, Our Future

VANTA VCA Alloy Plus LODs

VANTA

Rugged. Revolutionary. Productive.

Olympus is a leader in XRF technology with a reputation for durability, quality, and accuracy. Vanta™ handheld XRF analyzers incorporate Olympus' Axon™ technology to deliver higher X-ray counts per second and fast calculations to identify alloy grades in as little as 1–2 seconds in even the most challenging environments.

The Vanta **VCA** model is capable of measuring elements from concentrations as low as several parts per million (ppm) all the way up to 100%. The limits of detection (LODs) represent the calculated value using three sigma 99.7% confidence level. The LOD for each element is a function of the testing time. Please contact your local Olympus representative for more information.

The limits of detection (LODs) reported here are based on automatically selected beam conditions (kV, µA, and filter settings) and a measurement time of 60 seconds:

- Several certified alloy standards were used for each base material.
- The iron (Fe) category contains both low alloy steels and stainless steels.
- LODs are, in general, lower for low alloy steels than with stainless steel.
- Actual working samples may contain interfering elements, so the actual working LODs for some 'real-world' samples may be higher than those presented here.
- The commonly accepted level for the limit of quantification (LOQ), or ability to quantify the concentration of an element, is 10 sigma.
- Only commonly occurring elements in each base material are listed. Vanta analyzers are capable of measuring many other elements.

VCA Alloy Plus LOD (ppm)

Element	Fe base	Cu base	Al base
Mg	–	–	3650
Al	1000	5000	–
Si	350	550	180
P	185	150	–
S	260	5	–
Ti	195	–	210
V	50	–	100
Cr	40	30	35
Mn	55	20	25
Fe	–	40	10
Co	200	30	–
Ni	40	35	10
Cu	30	–	13
Zn	50	90	10
W	45	–	–
Pb	40	20	5
Bi	65	60	5
Zr	15	–	3
Nb	6	–	–
Mo	7	–	–
Sn	40	50	20
Sb	70	60	10

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