

# ISO 4155:2022-05 (E)

## Magnesium and magnesium alloys - Determination of nickel - Inductively coupled plasma optical emission spectrometric method

---

<b>Contents</b>	<b>Page</b>
Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Principle .....	1
5 Reagents .....	1
6 Apparatus .....	2
6.1 Inductively coupled plasma optical emission spectrometer .....	2
6.1.1 General .....	2
6.1.2 Wavelengths .....	2
6.1.3 Limit of detection .....	3
6.1.4 Linearity of the calibration curve .....	3
7 Sampling and sample preparation .....	3
8 Procedure .....	3
8.1 General .....	3
8.2 Test sample .....	3
8.3 Determination .....	3
8.3.1 Preparation of the test solution for nickel contents between 0,000 2 % (mass fraction) and 0,01 % (mass fraction) .....	3
8.3.2 Preparation of the calibration solutions for nickel contents between 0,000 2 % (mass fraction) and 0,01 % (mass fraction) .....	4
8.3.3 Preparation of the test solution for nickel contents between 0,01 % (mass fraction) and 0,2 % (mass fraction) .....	4
8.3.4 Preparation of the calibration solutions for nickel contents between 0,01 % (mass fraction) and 0,2 % (mass fraction) .....	4
8.4 Adjustment of the apparatus .....	5
8.5 Measurement of the calibration solutions .....	5
8.6 Calibration curve .....	5
8.7 Measurements of the test solution .....	5
9 Expression of results .....	5
9.1 Method of calculation .....	5
9.2 Precision .....	6
10 Test report .....	6
Annex A (normative) Limit of detection .....	7
Annex B (informative) Information on the precision test .....	8
Annex C (informative) Graphical representation of precision data .....	9
Bibliography .....	10