

# ISO 6486-1:2019 (E)

## Ceramic ware, glass ceramic ware and glass dinnerware in contact with food — Release of lead and cadmium — Part 1: Test method

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Principles
5	Reagents and materials
5.1	Reagents
5.2	Materials and supplies
6	Apparatus
6.1	Analytical techniques
6.2	Accessories
7	Sampling
7.1	Priority
7.2	Sample size
7.3	Preparation and preservation of test samples
8	Procedures
8.1	Determination of reference surface area for flatware
8.2	Preparation of articles which cannot be filled
8.3	Extraction
8.3.1	Extraction temperature
8.3.2	Leaching
8.3.2.1	Fillable articles
8.3.2.2	Non-fillable articles
8.3.3	Sampling of the extraction solution for analysis
8.3.4	Drinking rim test
8.4	Articles used in repeated contact with foodstuffs
9	Analytical methods
9.1	General
9.2	Calculation of release of lead and cadmium from ceramic hollowware
9.3	Calculation of release of lead and cadmium from flatware
9.4	Calculation of release of lead and cadmium from drinking rim
10	Test report
Annex A	(informative) Analytical method using ICP-MS
A.1	General
A.2	Principles
A.3	Interferences
A.4	Reagents
A.5	Apparatus
A.5.1	Inductively coupled plasma mass spectrometer
A.5.2	Accessories

- A.6 Procedures
- A.6.1 Instrument set up
- A.6.2 Calibration
- A.6.3 Determination of lead and cadmium
- A.7 Calculations
- A.8 Expression of results
- A.9 Quality control
- A.9.1 Instrument detection limit (LDI)
- A.9.2 Blank
- A.9.3 Calibration verification and drift
- A.9.4 Internal standard abundance
- A.9.5 Interference
- A.10 Precision

**Annex B (informative) Analytical method using FAAS**

- B.1 General
- B.2 Principles
- B.3 Reagents
- B.4 Apparatus
- B.5 Procedures
- B.5.1 Calibration
- B.5.2 Determination of lead and cadmium
- B.6 Expression of results

**Annex C (informative) Analytical method using ICP-OES**

- C.1 General
- C.2 Principles
- C.3 Interferences
- C.3.1 General
- C.3.2 Spectral interferences
- C.3.3 Non-spectral interferences
- C.3.3.1 Physical interferences
- C.3.3.2 Excitation interferences
- C.3.3.3 Chemical interferences
- C.3.3.4 Detecting non-spectral interferences
- C.3.3.5 Compensation of non-spectral interferences by the use of internal standards
- C.4 Reagents
- C.5 Apparatus
- C.5.1 Inductively coupled plasma optic emission spectrometer
- C.5.2 Accessories
- C.6 Procedures
- C.6.1 Instrument set up
- C.6.2 Calibration and determination of Pb and Cd
- C.6.3 Expression of results

Page count: 26