
International Standard



7086/2

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

**Glassware and glass ceramic ware in contact with food —
Release of lead and cadmium —
Part 2 : Permissible limits**

Articles en verre et en vitro céramique en contact avec les aliments — Émission de plomb et de cadmium — Partie 2 : Limites admissibles

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Descriptors : glassware, tableware, lead, cadmium, limits.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7086/2 was developed by Technical Committee ISO/TC 166, *Ceramic ware, glassware and glass ceramic ware in contact with food*, and was circulated to the member bodies in May 1981.

It has been approved by the member bodies of the following countries :

Austria	Israel	South Africa, Rep. of
Brazil	Japan	Spain
Canada	Mexico	United Kingdom
Egypt, Arab Rep. of	Poland	USA
France	Romania	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Czechoslovakia
Germany, F. R.

Glassware and glass ceramic ware in contact with food — Release of lead and cadmium — Part 2 : Permissible limits

0 Introduction

The problem of lead and cadmium release from glassware and glass ceramic ware requires effective means of control to ensure the protection of the population against possible hazards arising from the use of improperly formulated, applied or fired glazes and/or decorations on the food contact surfaces of glassware and glass ceramic ware used for the preparation, serving and storage of food and drinks. As a secondary consideration, different requirements from country to country for the control of the release of toxic materials from the surfaces of glassware and glass ceramic ware present non-tariff barriers to international trade in these commodities. Accordingly, there is a need to establish internationally accepted permissible limits for the release of lead and cadmium from glassware and glass ceramic ware.

An expert panel, convened by the World Health Organization (WHO), met in Geneva, in June 1976, and recommended the adoption of sampling methods, testing procedures and limits for the release of toxic materials from ceramic ware.¹⁾ A further meeting was convened by WHO in November 1979.²⁾

The permissible limits specified in this International Standard are based on the WHO recommendations, because it was the sense of the WHO meeting that the term "ceramic" includes ceramics, glass, vitreous enamels and glass ceramics. As the capability of the industry increases, efforts will be made to reduce these limits for lead and cadmium release.

The results of an international survey showed that cooking ware made from glass or glass ceramics is not normally decorated on the food contact surfaces. For that reason this International Standard does not address cooking ware.

1 Scope

This part of ISO 7086 specifies permissible limits for the release of lead and cadmium from glassware and glass ceramic ware intended for use in contact with food (including drinks).

2 Field of application

This part of ISO 7086 is applicable to articles made from glass and glass ceramics, which may be transparent, translucent,

opaque, coloured, colourless or decorated on the food contact surface, and which are intended to be used for the preparation, serving and storage of food, including packaging.

It does not apply to vitreous and porcelain enamel ware, nor to ceramic ware.

3 Reference

ISO 7086/1, *Glassware and glass ceramic ware in contact with food — Release of lead and cadmium — Part 1 : Method of test.*

4 Definitions

See ISO 7086/1.

5 Permissible limits

The lead and cadmium release from any individual article, when determined by the method specified in ISO 7086/1, shall not exceed the values given in the table.

NOTE — These values are expressed in milligrams per square decimetre of the reference surface area for flatware and in milligrams per litre of extraction solution for hollow-ware.

Table

Type of glassware and glass ceramic ware	Maximum lead release		Maximum cadmium release	
	mg/dm ²	mg/l	mg/dm ²	mg/l
Flatware	1,7		0,17	
Small hollow-ware		5,0		0,50
Large hollow-ware		2,5		0,25

1) See WHO/Food Additives 77.44. *Ceramic Foodware Safety, Sampling, Analysis and Limits for Release* (Report of a WHO meeting, Geneva, 8-10 June 1976).

2) See WHO/Food Additives HCS/79.7. *Ceramic Foodware Safety, Critical Review of Sampling, Analysis and Limits for Lead and Cadmium Release* (Report of a WHO meeting, Geneva, 12-14 November 1979).