



Memorandum D10-14-67

Ottawa, August 27, 2015

Tariff Classification of Porcelain or China Versus Other Ceramics

In Brief

This memorandum explains the role of the Canada Border Services Agency regarding the tariff classification of porcelain or china versus other ceramics.

This memorandum outlines the administrative policy of the Canada Border Services Agency regarding the tariff classification of porcelain or china as compared to other ceramics, such as stoneware, vitreous china, semi-porcelain, white granite, earthenware and terra cotta. It also provides guidelines in the interpretation of what is impermeable, white and translucent.

Legislation

[Customs Tariff](#) – Section 69

Explanatory Notes to the Harmonized Commodity Description and Coding System

General Explanatory Note to Chapter 69, Sub-chapter II:

(I) Porcelain or China

Porcelain or china means hard porcelain, soft porcelain, biscuit porcelain (including parian) and bone china. All these ceramics are almost completely vitrified, hard, and are essentially impermeable (even if they are not glazed). They are white or artificially coloured, translucent (except when of considerable thickness), and resonant.

Hard porcelain is made from a body composed of kaolin (or kaolinic clays), quartz, feldspar (or feldspathoids), and sometimes calcium carbonate. It is covered with a colourless transparent glaze fired at the same time as the body and thus fused together.

Soft porcelain contains less alumina but more silica and fluxes (e.g., feldspar). Bone china, which contains less alumina, contains calcium phosphate (e.g., in the form of bone ash); a translucent body is thus obtained at a lower firing temperature than with hard porcelain. The glaze is normally applied by further firing at a lower temperature, thus permitting a greater range of underglaze decoration.

Biscuit porcelain is unglazed porcelain, of which parian-ware (sometimes called Carrara porcelain) is a special, fine-grained, yellowish type containing more feldspar, and often resembling Paros marble in appearance, hence its name.

(II) Other ceramic products

Ceramic products other than of porcelain or china include:

(A) Ceramics with a porous body which, unlike porcelain, are opaque, permeable to liquids, easily scratched with iron and whose fracture sticks to the tongue. Such ceramics include:

- (1) Pottery made from common ferruginous and calcareous clay (brick earth). It has a dull earthy texture and its colour is generally brown, red or yellow.
- (2) A wide range of white or coloured ceramics (earthenware, majolica, delft-ware, etc.). The body is porous and must be glazed to make the articles impermeable (e.g., with transparent or opaque glazes such as white or

coloured metallic oxides). Earthenware, etc., is made from finely sieved clays mixed with water. It has a fine-grained body obtained by firing to a higher temperature than in the case of pottery made from common clay; it differs from porcelain or china because it is not completely vitrified.

(B) Stoneware which, though dense and hard enough to resist scratching by a steel point, differs from porcelain because it is opaque and normally only partially vitrified. Stoneware may be a vitreous (impermeable) or semi-vitreous ware. It is usually grey or brownish because of impurities contained in the clay used for its manufacture, and is normally glazed.

(C) Certain so-called “semi-porcelains” or “imitation porcelains”, sometimes prepared, decorated and glazed to give the commercial appearance of porcelain. Without being really opaque like earthenware, or truly translucent like porcelain, these products may be slightly translucent in the thinner parts such as the bottoms of cups. These materials can, however, be distinguished from real porcelain because their fracture is rough-grained, dull and non-vitrified. They are therefore porous beneath the glaze and the fracture clings to the tongue. Further, they are easily scratched with a steel knife, though it should be noted that certain soft chinas may also be scratched by steel. Products of these imitation “porcelains” are not considered as porcelain or china.

Guidelines and General Information

Definitions

1. For the purposes of this memorandum, these terms have the following meanings:

Body – The material from which ceramic is made, excluding the glaze.

Impermeable – Not porous; fluid does not pass through.

Natural white ceramic body – A colour value of 8.5 or greater on the Munsell Colour Chart and a Munsell chroma of 0.5 or less, not as a result of artificial colouring.

Refractory ceramics – Fired articles having the special property of resisting high temperatures as met in metallurgy, the glass industry, etc. (e.g., of the order of 1,500 °C and higher).

Semi-vitreous – Water absorption between 0.5% and 3%.

Vitreous (vitrified) – Not porous; $\leq 0.5\%$ of water absorption.

Whiteware – Can be white, off-white, ivory or light grey colour in the fired state.

2. This policy deals with the classification of various types of ceramic of Chapter 69 of the *Customs Tariff* (Tariff). In particular, it clarifies the distinction between “porcelain or china” and “other” ceramics. The latter include stoneware, vitreous china, semi-porcelain, white granite, earthenware, terra cotta, amongst other ceramics.

3. The General Explanatory Note to Chapter 69, Sub-chapter II, (I) Porcelain or china, and (II) Other ceramic products, relates to the classification of china, porcelain and other ceramic ware. It states that in order for goods to be classified as porcelain or china they must be almost completely vitrified, hard, essentially impermeable, white or artificially coloured, translucent and resonant.

4. The American Society for Testing and Material (ASTM) standard C242 defines “vitreous” as generally signifying that the ware has a water absorption rate below 0.5%, except for floor tiles, wall tiles and low-tension electrical porcelain which are considered to be vitreous provided that the water absorption does not exceed 3%. The vitrification is produced by heat and melting of the body material as opposed to simple sintering, which does not fuse the material.

5. For tariff classification purposes, all china and porcelain products must:

(a) have a water absorption of less than or equal to 0.5%.

(ASTM Specification C373 (except that the specimens may have a minimum weight of 10g and may be glazed)

(b) have a natural white colour value of 8.5 or greater on the Munsell colour chart and a Munsell chroma of 0.5 or less, unless it is artificially coloured.

(Decisions Nos. 2914, 2928 and 2948 of the former Tariff Board of Canada)

(c) be translucent through 4 mm thickness with glaze removed, when viewed against a 7W light.

(British Standards Institute standard 5416)

6. Following is a description for standard permeability, colour, translucency and firing temperatures of porcelain or china, stoneware, vitreous china, semi-porcelain, white granite, earthenware and terra cotta:

(a) **Porcelain or China** — A glazed or unglazed vitreous ceramic whiteware that is translucent; generally made up of kaolin clay or China clay, quartz and feldspar; but can also contain ball clay, calcium carbonate, alumina, bone ash, steatites, etc. For example: bone china is a type of porcelain body in which calcined bone (bone ash / calcium phosphate) is a major component.

Permeability: water absorption rate of less than or equal to 0.5%

Colour: naturally white or naturally white, but artificially coloured

Translucency: translucent through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 1200° - 1400° C

(b) **Stoneware** — It may be vitreous or semi-vitreous; usually naturally coloured grey or brownish because of impurities in the clay used for its manufacture; normally glazed; made from non-refractory fireclay or a combination of clays, fluxes and silica.

Permeability: water absorption rate of less than or equal to 3%

Colour: naturally non-white

Translucency: opaque through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 1150° - 1315° C

(c) **Vitreous China** — A vitrified, opaque ceramic composed of a mixture of kaolin clay or China clay, ball clay, quartz and feldspar; white or naturally coloured grey or brownish because of impurities in the clay used for its manufacture; normally glazed.

Permeability: water absorption rate of less than or equal to 0.5%

Colour: any; normally white or off-white

Translucency: opaque through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 1150° - 1315° C

(d) **Semi-porcelain (Imitation Porcelain) or White Granite** — commonly referred to as “ironstone”; semi-vitreous tableware having the commercial appearance of porcelain, without being as opaque as earthenware, or as translucent as porcelain; may be slightly translucent in thinner parts.

Permeability: water absorption rate of more than 0.5% but no more than 3%

Colour: naturally white or naturally white, but artificially coloured

Translucency: opaque through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 1150° - 1315° C

(e) **Earthenware** — mixture of quartz, kaolin, ball clay and feldspar; porous, opaque, and not as strong as other ceramic ware; must be glazed to be watertight.

Permeability: water absorption rate of greater than 3.0%

Colour: any

Translucency: opaque through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 1000° - 1150° C

(f) **Terra Cotta** — fired clay ceramic that is porous and usually unglazed; its uses include garden ware, vessels, water and waste pipes and surface embellishments in building construction and sculptures; the material is weak compared to stoneware, but can be glazed to increase its durability.

Permeability: water absorption rate greater than 3.0%

Colour: any; normally naturally red, orange or brown due to the iron content; other colours include yellow, grey and pink

Translucency: opaque through 4 mm thickness with glaze removed, when viewed against a 7W light

Firing temperature: generally 850° - 1000° C

Additional Information

7. For certainty regarding the tariff classification of a product, importers may request an advance ruling for tariff classification. Details on how to make such a request are found in CBSA [Memorandum D11-11-3, *Advance Rulings for Tariff Classification*](#).

8. For more information, within Canada call the Border Information Service at **1-800-461-9999**. From outside Canada call 204-983-3500 or 506-636-5064. Long distance charges will apply. Agents are available Monday to Friday (08:00 – 16:00 local time/except holidays). TTY is also available within Canada: **1-866-335-3237**.

References	
Issuing Office	Trade and Anti-dumping Programs Directorate
Headquarters File	
Legislative References	Customs Tariff
Other References	D11-11-3 Explanatory Notes to the Harmonized Commodity Description and Coding System; American Society for testing and material standard: C242 and C373; Tariff Board of Canada Decisions Nos. 2914, 2928, and 2948; British Standard Institute standard 5416
Superseded Memorandum D	N/A