RULEBOOK

ON LABELING OF CRYSTAL GLASS PRODUCTS

(“Official Gazette of RS”, no. 1/14)

Article 1

This Rulebook prescribes requirements for the labeling products of crystal glass, as well as a inspection of crystal glass products after making available on the market.

Article 2

The terms as used in this Rulebook shall have the following meaning:

1) „making available on the market“ shall mean any making available of crystal glass products on the market of the Republic of Serbia for the purpose of distribution, consumption or use, whether in return for payment or free of charge;

2) „supplier“ shall mean a manufacturer, representative, importer or distributor.

Terms used in this Rulebook which are not defined under Paragraph 1 of this Article shall have meanings stipulated by the Law governing technical requirements for products and conformity assessment, trade and consumer protection.

Article 3

This Rulebook shall apply to the crystal glass products which are used in daily use (at the table, in the kitchen, toilet purposes, in offices, for decorating, and the like), including crystal glass products that are listed in the regulation defining customs tariff nomenclature (hereinafter referred to as: crystal glass products)

Article 4

Crystal glass products which have description from column b) listed in Annex I – List of crystal glass categories, printed with this Rulebook as an integral part hereof, may be placed on the market only if they are marked with the symbols specified in column h) of Annex I and if they have appropriate properties from column g) to e) of Annex I.

Article 5

Crystal glass products, which are advertised, may be marked with symbols from the column h) of Annex I, only if they have the properties listed in columns g) to e) of Annex I.

Article 6

Where the name of supplier, a trade mark or any other inscription contains, as a main part, as an adjective or as a root, a description appearing in column b) of Annex I or a name that could be misinterpreted as a description of product, trade mark, or name is immediately preceded by the following, in very prominent lettering:

1) Characteristics of the products specified in columns g) to e) of Annex I; or

2) A statement of the supplier of the exact nature of the product, where that product does not have characteristics specified in columns g) to e) of Annex I.

If the crystal glass products is marked in the manner prescribed in Article 4 of this Rulebook and in paragraph 1 of this Article, the description and symbols may appear on one and the same label.

Article 7

Cristal glass products may be placed on the market only if the description in column b) of Annex I is in Serbian language.

Article 8

During the inspection of crystal glass products, after their placing on the market, conformity of description and symbols of crystal glass products with the requirements of this Rulebook is checked.

Article 9

Inspection of crystal glass products after their placing on the market, which determines whether crystal glass products contain descriptions or symbols in Annex I have the corresponding properties in column g) to e) of Annex I, shall be carried out on the basis of the methods listed in Annex II – Determine the chemical and physical properties of categories of crystal glass, printed with this Rulebook as an integral part hereof.

Article 10

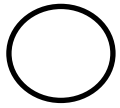
This Rulebook is in compliance with all principles and essential requirements under Council Directive of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass, 69/493/EEC.

Article 11

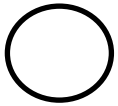
This Rulebook shall enter into force on the eighth day following its publication in the „Official Gazette of the Republic of Serbia“, and shall apply from 1 January 2018.

ANNEX I

List of crystal glass categories

No	Description of category		Characteristics				Labelling	
		Explanatory notes	Metal oxides (%)	Density	Refractive index	Surface hardness	Shape Of symbol	Remarks
-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-	-i-
1.	CRISTAL SUPERIEUR 30% CRISTALLO SUPERIORE 30% HOCHBLEIKRISTALL 30% VOLLOODKRISTAL 30% ►**A1** FULL LEAD CRYSTAL 30% KRYSTAL 30% _____ ◄ ►**A2** κρύσταλλα υψηλής περιεκτι-κότητος σε μόλυβδο ◄ ►**A2** 30%◄ ►**A3** CRISTAL SUPERIOR 30% CRISTAL DE CHUMBO SUPERIOR 30% ◄ ►**A4** VYSOCE OLOVNATÉ KŘIŠŤÁLOVÉ SKLO ◄ ►**A4** 30%◄ ►**A4** KÕRGKVALITEETNE KRISTALL◄ ►**A4** 30%◄ ►**A4** AUGSTĀKĀ LABUMA KRISTĀLS◄ ►**A4** 30%◄ ►**A4** DAUGIAŠVINIS KRIŠTOLAS◄ ►**A4** 30%◄ ►**A4** NEHÉZ ÓLOMKRISTÁLY◄ ►**A4** 30%◄ ►**A4** KRISTALL SUPERJURI◄ ►**A4** 30%◄ ►**A4** SZKŁO KRYSZTAŁOWE WYSOKOOŁOWIOWE◄ ►**A4** 30%◄ ►**A4** KRISTAL Z VISOKO ►**A4** 30%◄	Description may be freely used, whatever the country of origin or the country of destination The percentage figure refers to the lead oxide content	PbO ≥ 30%	≥ 3,00	x			Round label. Colour: Gold ≥ 1 cm

	VSEBNOSTJO SVINCA◄ ▶A4 VYSOKOOLOVNATÉ ▶A4 30% KRIŠTÁĽOVÉ SKLO◄ PbO ◄ ▶M1 ТЕЖЪК ОЛОВЕН КРИСТАЛ 30% CRISTAL SUPERIOR 30% ◄ SRB High-lead crystal 30%							

No	Description of category		Characteristics				Labelling	
		Explanatory notes	Metal oxides (%)	Density	Refractive index	Surface hardness	Shape Of symbol	Remarks
-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-	-i-
2.	CRISTAL AU PLOMB 24% CRISTALLO AL PIOMBO 24% BLEIKRISTALL 24% LOODKRISTAL 24% ▶A1 LEAD CRYSTAL 24% KRYSTAL 24% _____ ◄ ▶A2 μολυβδούχα κρύσταλλα ◄▶A2 25%◄ ▶A3 ΜΟΛΥΒΔΟΥΧΑ ▶A3 24%◄ ΚΡΥΣΤΑΛΛΑ ◄ ▶A3 CRISTAL AL PLOMO ◄ ▶A3 24%◄ ▶A3 CRISTAL DE CHUMBO ◄▶A3 24%◄ ▶A4 OLOVNATÉ ▶A4 24%◄ KŘIŠŤÁLOVÉ SKLO ◄ ▶A4 KVALITEETKRISTALL◄ ▶A4 24%◄ ▶A4 KVALITEETKRISTALL◄ ▶A4 24%◄ ▶A4 ŠVINO KRIŠTOLAS◄ ▶A4 24%◄ ▶A4 ÓLOMKRISTÁLY◄ ▶A4 24%◄ ▶A4 KRISTALL BIC-ĊOMB◄ ▶A4 24%◄		PbO ≥ 24%	≥ 2,90	x			Round label. Colour: gold ≥ 1 cm

	▶A4 SZKŁO KRYSZTAŁOWE ▶A4 24% ◀ OŁOWIOWE ◀ ▶A4 SVINČEV KRISTAL ◀ ▶A4 24% ◀ ▶A4 OLOVNATÉ ▶A4 24% ◀ KRIŠTÁĽOVÉ SKLO ◀ PbO ◀ ▶M1 ОЛОВЕН КРИСТАЛ 24% CRISTAL CU PLUMB 24% ◀ SRB: LEAD CRYSTAL 24%							

No.	Description of category		Characteristics				Labelling	
		Explanatory notes	Metal oxides (%)	Density	Refractive index	Surface hardness	Shape Of symbol	Remarks
-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-	-i-
3.	CRISTALLIN VETRO SONORO SUPERIORE KRISTALLGLAS KRISTALLIJNGLAS (1) SONOORGLAS (2) ▶A1 CRYSTAL GLASS, CRYSTALLIN KRYSTALLIN _____ ◀ ▶A2 υαλοκρύσταλλα ◀ ▶A3 VIDRIO SONORO SUPERIOR VIDRO SONORO SUPERIOR ◀ ▶A4 KŘIŠŤÁLOVÉ SKLO KRYSTALIN ◀ ▶A4 KRISTALLIINKLAAS ◀ ▶A4 KRISTĀLSTIKLS ◀	Only the description in the	ZnO BaO PbO K2O singly or together ≥ 10%	≥ 2,45	nD ≥ 1,520		□	Square label. Colour: silver Side: ≥ 1 cm

	▶A4 KRIŠTOLAS ◄ ▶A4 KRISZTALLIN ÜVEG ◄ ▶A4 KRISTALLIN ◄ ▶A4 SZKŁO KRYSZTAŁOWE 'S' ◄ ▶A4 KRISTALNO STEKLO (KRISTALIN) ◄ ▶A4 KRIŠTALÍN ◄ ▶M1 КРИСТАЛИН STICLĂ CRISTALINĂ ◄ SRB Crystal glass	language or languages of the country in which the goods are marketed may be used Exception: On the German market pressed glass containing 18% PbO and having a density of at least 2-70 may be sold under the description "PRESSBLEIKRISTALL" or "BLEIKRISTALL GEPRESST" (in capital letters)						

No.	Description of category		Characteristics				Labelling	
		Explanatory notes	Metal oxides (%)	Density	Refractive index	Surface hardness	Shape Of symbol	Remarks
-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-	-i-

4.	VERRE SONORE VETRO SONORO KRISTALLGLAS SONOORGLAS ▶A1 CRYSTAL GLASS, CRYSTALLIN KRYSTALLIN _____ ◀ ▶A2 υαλοκρύσταλλα ◀ ▶A3 VIDRIO SONORO VIDRO SONORO ◀ ▶A4 KŘIŠŤÁLOVÉ SKLO ◀ ▶A4 KRISTALLKLAAS ◀ ▶A4 KRISTĀLSTIKLS◀ ▶A4 KRIŠTOLO STIKLAS ◀ ▶A4 KRISZTALIN ÜVEG ◀ ▶A4 KRISTALLIN ◀ ▶A4 SZKŁO KRYSZTAŁOWE◀ ▶A4 KRISTALNO STEKLO◀ ▶A4 KRIŠTÁĽOVÉ SKLO ◀ ▶M1 КРИСТАЛНО СТЪКЛО CRISTALIN — STICLĂ SONORĂ ◀ SRB Pressed crystal		BaO,PbO, K2O singly or together ≥ 10%	≥ 2,40		Vickers — 550 ± 20		Label in the shape of an equilateral triangle. Colour: silver Side: ≥ 1 cm

X nD ≥ 1,545 as criterion for an additional non-destructive determination of the products (at- the time of import).

(1) In Belgium.

(2) In the Netherlands.

ANNEX II

METHODS FOR DETERMINING THE CHEMICAL AND PHYSICAL PROPERTIES OF CATEGORIES OF CRYSTAL GLASS

CHEMICAL ANALYSES

1.1. BaO and PbO

1.1 Determination of the combination BaO + PbO

Weigh, to within 0.0001 grams, approximately 0.5 grams of powdered glass and place in a platinum dish. Moisten with water and add 10 milliliters of a 15 % solution of sulphuric acid and 10 milliliters hydrofluoric acid. Heat in sand bath until white fumes are given off. Allow to cool and treat again with 10 milliliters hydrofluoric acid. Heat until reappearance of white fumes. Allow to cool and rinse the sides of the dish with water. Heat until reappearance of white fumes. Allow to cool, carefully add 10 milliliters of water, then transfer to a 400 milliliter's beaker. Rinse the dish several times with a 10 % sulphuric and solution and dilute to 100 milliliters with same solution. Boil for 2-3 minutes. Leave to stand overnight.

Pass through a filtering crucible of 4 porosity, wash first of all with a 10 % solution of sulphuric acid, then two or three times with ethyl alcohol. Dry for one hour in an oven at 150 ºC. Weigh $BaSO_4 + PbSO_4$.

1.2 Determination of BaO

Weigh, to within 0.0001 grams, about 0.5 grams of powdered glass and place in a platinum dish. Moisten with water and add 10 milliliters of hydrofluoric acid and 5 milliliters perchloric acid. Heat in sand bath until white fumes are given off.

Allow to cool and add a further 10 milliliters hydrofluoric acid. Heat until reappearance of white fumes. Allow to cool and rinse the sides of the dish with distilled water. Heat again and evaporate until almost dry. Start again with 50 milliliters of a 10 % solution of hydrochloric acid and heat gently to aid dissolution. Transfer to a 400 milliliters beaker and dilute to 200 milliliters with water. Bring to boil and pass a current of hydrogen sulphide through the hot solution. When the precipitate of lead sulphide drops to the bottom of the beaker, turn off the hydrogen sulphide. Pass through a fine filter paper and wash with cold water saturated with hydrogen sulphide.

Boil the filtrates and then, if necessary, reduce them by evaporation to 300 milliliters. Add to boiling mixture 10 milliliters of a 10 % solution of sulphuric acid. Remove from heat and leave to stand for at least four hours.

Pass through a fine filter paper, wash with cold water. Calcine the precipitate to 1050 ºC, and weigh the $BaSO_4$.

2. Determination of ZnO

Evaporate the filtrates from the separation of $BaSO_4$ so as to reduce their volume to 200 milliliters. Neutralize with ammonia in the presence of methyl red and add 20 milliliters of N/10 sulphuric acid. Adjust the pH to 2 (pH meter) by adding N/10 sulphuric acid or N/10 caustic soda whichever

the case, and precipitate the zinc sulphide in the cold by passing a current of hydrogen sulphide. Let the precipitate settle for four hours, then collect on a fine filter paper. Wash with cold water saturated with hydrogen sulphide. Dissolve the precipitate on the filter by pouring through it 25 milliliters of a hot 10 % solution of hydrochloric acid. Wash the filter with boiling water until a volume of about 150 milliliters is obtained. Neutralize with ammonia in the presence of litmus paper, then add 1-2 grams solid urotropine to buffer the solution to about pH 5. Add a few drops of a 0.5 % freshly prepared aqueous solution of xylenol orange and titrate with an N/10 solution of Complexon III until the pink changes to citron yellow.

3. Determination of K2O

- by precipitation and weighing of potassium tetraphenylborate.

Procedure: 2 grams of glass are attacked, after crushing and sieving, by 2 milliliters concentrated HNO3, 15 milliliters HCO4, and 25 milliliters HF in a platinum dish on a water-bath then in a sand bath. After dense fumes of perchloric acid have been given off (continue until dry), dissolve with 20 milliliters of hot water and 2-3 milliliters concentrated HCl.

Transfer to a 200 milliliters graduated flask and adjust to volume with distilled water.

Reagents:

- 6 % solution of sodium tetraphenylborate : dissolve 1.5 grams of the reagent in 250 milliliters distilled water. Remove the light cloudiness which remains by adding 1 gram of hydrated aluminia. Shake for five minutes and filter, taking care to re-filter the first 20 milliliters obtained.

- Washing solution for the precipitate : prepare a little of the potassium salt by precipitation in a solution of about 0.1 grams KCl to 50 milliliters N/10 HCl into which the solution of tetraphenylborate is poured while stirring, until precipitation ceases. Filter through a sinter. Wash with distilled water. Dry in a desiccator at room temperature. Then pour 20-30 milligrams of that salt into 250 milliliters of distilled water. Stir from time to time. After thirty minutes, add 0.5-1 gram of hydrated alumina. Stir for a few minutes. Filter.

Method of operation: Take an aliquot of the acid digest corresponding to about 10 milligrams of K2O. Dilute to about 100 milliliters slowly add the reagent solution, about 10 milliliters per assumed 5 milligrams of K2O, while gently stirring. Allow to stand for a maximum of fifteen minutes then filter through a tared sintered crucible of porosity 3 or 4. Wash with washing solution. Dry for thirty minutes at 120 ºC. Conversion factor 0.13143 for K2O.

4. Tolerances

± 0.1 in absolute value for each determination. If the analysis gives a lower value, within the tolerances, than the limits fixed (30,24 or 10 %), the average of at least three analyses must be taken. If that average is greater than or equal to 29.95, 23.95 or 9.95 respectively, the glass must be accepted in the category corresponding to 30,24 and 10 % respectively.

PHYSICAL DETERMINATIONS

1. Density

Method by hydrostatic balance to within ± 0.01. A sample of at least 20 grams is weighed in air and weighed immersed in distilled water at 20 ºC.

2. Refractive index

The index is measured on the refractometer to within ± 0.001.

3. Microhardness

Vickers hardness is to be measured according to the standard ASTM E 92-65 (Revision 1965) but using a load of 50 grams and taking the average of 15 determinations