The European Commission is currently reviewing the existing regulatory framework on food contact materials, in particular Directive 84/500/EEC for ceramic articles. Among the discussed features of this revision are:

- the extension of the Directive’s scope to glass materials and articles,
- a significant reduction of the limit values for the migration of lead (Pb, reduction by a factor of 400) and cadmium (Cd, reduction by a factor of 60) and,
- at a subsequent stage, the inclusion of limit values for other metals and the definition of a new concept of overall migration.

Glass products currently fall under the Framework Regulation (EC) 1935/2004 on materials and articles intended to come into contact with food. They are not covered by specific measures like those established for ceramic articles under the Directive 84/500/EEC. Nevertheless, glass manufacturers follow Directive 84/500/EEC on a voluntary basis.

Glass for Europe understands that the proposed revision and new limit values are driven by the European authorities’ intention to put in place the most stringent regulatory framework with a view to eliminating any potential health risk.

Since the European Commission is considering a review of Directive 84/500/EEC and its possible extension to glass products and articles, **Glass for Europe would like to highlight some of the specificities of soda-lime silicate flat glass products.** Among these specificities is the fact that heavy metals such as cadmium and lead are never intentionally added in soda-lime silicate flat glass.

In light of these specificities, undetectable migration demonstrated using currently available techniques and the disproportionate nature of the measure for a sector serving principally the construction and automotive industries, **Glass for Europe believes that:**

1. clear soda-lime silicate flat glass should be exempted from systematic testing obligations.
2. coloured soda-lime silicate flat glass should also be exempted when no lead or cadmium compounds are intentionally added in the raw materials.

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1 This would be consistent with a UK study commissioned by the UK Food Standards Agency on the elemental migration from glass items in contact with foodstuffs. The study was conducted by Dr Adam Kelsall and Nicola Broadhurst of Glass Technology Services in Sheffield in 2003. Soda lime silica flat ware was not regarded as a “glass type of interest” (based on its composition and proposition of use) and therefore not included in the range of glass compositions in common use for food contact purposes analysed in the study. [http://www.foodbase.org.uk/results.php?f_report_id=316](http://www.foodbase.org.uk/results.php?f_report_id=316)
Use of flat glass for food applications is really very limited and rare: flat glass is mostly used in buildings, automotive and solar energy modules

More than 99% of flat glass production is used for windows, facades, automotive glass and solar energy modules. Only a very small fraction of flat glass production (much lower than 1% taking into account all other applications) is used in products intended for food contact. This limited number of articles includes cutting boards, decorative serving plates, tables and counter tops and fridge shelves.

Although quantities of flat glass products that may have food contact applications are almost negligible, demonstration of compliance with new limit values would be required for all flat glass production (over 9 million tonnes in the EU), as the products' final destination and usage are not known to the flat glass producer at the time of production.

Absence of health hazard

Current tests performed by flat glass companies to demonstrate compliance with the existing migration limits have consistently confirmed, with large confidence, compliance with the limits. Indeed all the results are below the quantification limits of the analytical equipment commonly used in laboratories.

In fact, leaching testing performed on flat glass has consistently showed that for lead and cadmium, flat glass products are at least 500 times lower than the limits set by Directive 84/500/EEC and ISO 6486-2:1999, which applies to ceramic and glass articles intended to come into contact with foodstuffs.

Testing conditions not adapted to the reality of food contact of flat glass products

Unlike other articles potentially targeted by the Directive, flat glass products that are used for food contact purposes are usually intended to have short-contact times and contact with food in the solid state only. The prescribed testing conditions (24h contact at 22°C in 4% acetic acid) are not representative of a solid exchange. Such test conditions would therefore lead to a major overestimation of real migration, and consequently consumer exposure.

A disproportionate burden on producers for no public health benefit

Reconfirming compliance with the newly proposed limits cannot be performed internally by companies since the proposed new limit values for lead and cadmium migration requires specific testing conditions including the use of ultra-pure reagents, clean rooms and the most advanced equipment in terms of accuracy. It would therefore require testing to be done by specialised external laboratories that have the appropriate equipment and expertise to perform this testing.

Even if a combination of laboratory type tests and proxy tests were allowed, this would still be disproportionate considering that over 99% of flat glass products will never be used for food contact applications. In this context, imposing the testing of all flat glass produced in Europe would put a major burden on producers for no public health benefit.

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2 For instance, tests provide results per liter and conversion factors have to be used for flat ware. The conversion factor is based on a factor of 6 from liters to square decimeters (considering the sum of the areas of the 6 faces of a cube of 1 liter), which implies a contact with all faces and the entire area of each of the 6 faces, which simply cannot physically happen while using products made of flat glass.
burden on manufacturers, whereas all scientific evidence shows that soda-lime silicate flat glass products do not pose migration problems.

Finally, it must be kept in mind that flat glass manufacturers do not put on the market the ‘final articles’ but only supply the glass to downstream processors that are specialised small and medium-size companies (SMEs). These SMEs may face major difficulties in demonstrating compliance for their final flatware products. Indeed they would be forced to demonstrate compliance for each consignment of flat glass.

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In view of the inert properties of glass, the composition of soda-lime silicate flat glass and very low migration demonstrated using currently available techniques, glass manufacturers firmly believe that:

1. clear soda lime silicate flat glass intended to be in contact with food should be exempted from systematic testing obligations.
2. The same exemption should apply to coloured soda-lime silicate flat glass when no lead or cadmium are intentionally introduced in the raw materials.

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About Glass for Europe
Glass for Europe is the trade association for Europe’s manufacturers of flat glass. Flat glass is the material that goes into a variety of end-products and primarily in windows and façades for buildings, windscreens and windows for automotive and transport as well as glass covers, connectors and mirrors for solar-energy equipments. Although in nearly confidential quantities, flat glass is also used for many other applications such as furniture, electronics, appliances, etc. Glass for Europe has four members: AGC Glass Europe, NSG-Group, Saint-Gobain Glass and Sisecam-Trakya Cam and works in association with Guardian. Altogether, these five companies represent 90% of Europe’s flat glass production.

Glass for Europe firmly believes that state-of-the-art glass, such as Low-E insulating glass, Solar-Control glass and Solar-Energy glass can play a vital role in achieving the EU’s energy saving targets and promotes ambitious mechanisms to support the market uptake of energy-efficient glass technologies.