

## **Use of amorphous Alumino-Silicate Wool/ Refractory Ceramic Fibres (ASW/ RCF) in the European glass industries**

The European glass industries (comprising flat glass, container glass, domestic glass, continuous filament glass fibres and special glass) need alumino-silicate refractory ceramic fibre (ASW/RCF) products with very limited possibilities to use alternative materials.

ASW/RCF, in the form of mats, are used in the glass melting process as insulation material for moulds (covering & interior wall insulation), mould release agents, transport media, and tool protection. Alternative materials have been investigated, but to date no suitable material has been found that can withstand the high thermal, chemical and mechanical stress experienced in the high temperature glass melting process.

ASW/RCF blankets and other products in high-temperature melting glass processes are electrical and thermal insulation of platinum components, sealing of floor drains in the glass melting tank, sealing of electrode feeders and permanent insulation of the expansion joints between the melting tank and the plate block. This material is also used for temporary repairs like covering small holes in the roof or crown of a melting tank, and gaps in the rear and side wall. Other mats are used to insulate the glass feeder, the stirring unit and various parts during hot repairs. Therefore, the production of many glass types is not currently possible without products based on ASW/RCF as insulation material.

Employees in the glass industry are experienced and trained in dealing with ASW/RCF. The working areas are monitored regularly by the Member States' competent authorities, such as the Employer's Insurance Association (Verwaltungs-Berufsgenossenschaft VBG) in Germany. No occupational diseases have been recorded after more than 50 years of use. The use of ASW/RCF products is restricted to an absolute minimum since substitution is mandatory after classification in 1997.

### **About Glass Alliance Europe**

**Glass Alliance Europe** is the European Alliance of Glass Industries. It is composed of 19 national glass associations and of the main sectors of the glass industries: container glass, flat glass, special glass, domestic glass and continuous filament glass fibres. Over Europe, glass-makers employ around 200.000 people.

Glass industries invest in research, develop and manufacture glass products fit for a sustainable, resource-efficient and low-carbon society such as energy-efficient windows, fully recyclable bottles and jars, weight-lightening continuous glass fibres, glass for photovoltaic modules, etc. Glass industries continuously invest in upgrading manufacturing installations to minimize the carbon content of products and increase their recycling.