

# CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 1988

## FLOAT GLASS, ROLLED GLASS AND WIRED GLASS

### SPECIFICATION

Glass for use in Construction, for Decoration and in Transport is generally of a soda-lime-silicate composition. Body coloured glasses for solar control and decoration are produced by small additions of suitable constituents which do not materially affect the basic properties other than those of heat and light transmissions.

Glass can also be coated to alter heat and light transmissions, again not materially affecting the basic properties.

### PHYSICAL PROPERTIES

Glass is a hard, amorphous brittle substance manufactured by melting together the constituent substances at temperatures up to 1600°C.

Glass is distributed in packs assembled from individual sheets in sizes from about 1 metre square up to 6 metres x 3 metres, in thicknesses from less than 2mm up to 25mm.

### HAZARDS

Soda-lime-silicate glasses are non-toxic and any additives or surface coatings are chemically bound into the glass or are present in such small quantities as to present no hazard.

Silica in the glass is present as silicates and does not present a hazard to health.

Processes such as grinding, polishing and edgeworking can generate glass dust, personal exposure to which should be kept below 10mg per cubic metre per 8 hour Time Weighted Average (TWA) total inhalable dust or 5mg per cubic metre per 8 hour TWA respirable dust.

Grinding, polishing and edgeworking are generally carried out using water as a flux which largely eliminates the glass dust risks.

Glass may be supplied with an interleaving powder to prevent surface damage, which may contain a small amount of stain inhibitor. This may cause temporary irritation during periods of high ambient temperature.

If irritation from interleaving powder is experienced steps should be taken to reduce the airborne dust levels and/or provide respiratory protection.

Airborne interleaving powder should be controlled to less than 10mg per cubic metre per 8 hour TWA total inhalable dust or 5mg per cubic metre per 8 hour TWA respirable dust.

If the interleaving powder is left to accumulate on workspace floors, the floors may become slippery. Good housekeeping is necessary to minimise this risk.

### HANDLING OF GLASS AND PACKAGES

Our products are carefully packed and loaded for trans-shipment and leave the factory in good condition. However there is a risk of breakage in transit and care should be taken when unloading.

Eye protection must be worn in accordance with the Protection of Eyes Regulations 1974. Other protective clothing such as gloves, safety shoes and headwear may be appropriate.

The greatest risk in the handling of glass is through laceration - appropriate first aid and further medical assistance should be available or easily obtainable at short notice.

Glass is brittle and, especially in pack form, heavy, and hence the storage and movement of glass in warehouses also raises the need for safe working practices to be laid down.

**STOCK, FLAT GLASS FROM PILKINGTON GLASS LIMITED**  
Glass from Pilkington Glass Limited (PGL) is supplied either LOOSE or PACKED.

**In LOOSE deliveries** - Glass is supplied in packs on a variety of stillages. The glass is secured to the stillage by detachable retention members.

**In PACKED deliveries** - Glass is placed in pallets, cases or end caps. Strapping is used for securing where appropriate.

### RISK AREAS

Care and skill in handling and stocking the product is necessary.

Customers should ensure that their handling equipment is correctly specified, that training is given in correct procedures and that appropriate safety clothing is used.

Particular precautions to take with PGL products are outlined here. They do not represent a complete handling specification and advice is available on request to PGL appropriate to individual customer situations.

### LOOSE GLASS

Glass is usually moved from vehicle to stock and within premises by crane and grab, pack by pack.

Grabs must interface correctly with stillage/rack. Grab handling skills are important.

Storage rack design and construction - robustness, angle of lean of packs and cladding materials must be suitable.

It is particularly important that where spacers are used to separate packs they are of a suitable material and they extend the full height of the packs.

Appropriate sucker frames with adequate vacuum must be provided, for handling individual plates of glass.

Loose glass can be safely handled manually if suitable protection is used.

### PACKED GLASS

Within this category the handling of glass in end caps needs particular precaution.

The vehicle should be level when unloading. If not the end caps should be chocked prior to unloading. The chocking should be maintained during the unloading procedure.

End caps are not designed to be lifted by vertical wire rope slings. The slings must provide an inward pull to the end caps by forming an included angle of between 90° - 120° at the apex.

The integrity of the metal strapping should be ensured before lifting end caps.

Chocking should be provided for end caps in stock. Double tier stacking should be avoided unless in slot racks.

Banding should not be removed until the pack is held firmly as in a grab or rack.

Single end caps, especially tall ones, can be relatively unstable and props should be used to avoid risk of pushover.