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Storage of Glass - On Sites

Introduction

Glass is generally stored vertically on its edge, in dry conditions. Whether storage is on the short or the long edge is dependent on size, substance, availability of space, etc.

Factors To Consider When Storing Glass On Its Edge

The glass should not be in contact with any substance that is harder than itself, e.g. concrete, stone, ferrous metals or broken glass. This will minimise the risk of damage and breakage, and can be implemented by cladding all supporting structures with timber, felt, rubber or plastic material. Care should be taken to ensure that all nails and screws are countersunk below the surface likely to come into contact with the glass. Always ensure supporting bearers are clean.

Angle Of Inclination Of The Glass

Transportable racks, barrows, trolleys and stillages: 5° - 6°. If the angle is increased above 6°, it will tend to put extra weight on the back sheets and make sheet separation more difficult to achieve.

Types of Storage

The type of rack selected depends on the size of the glass to be held, the volume or number of sheets to be stacked, and the method of handling to and from the particular rack.

All racks and trolleys should be constructed using sound quality materials and suit the SWL. They should also be examined periodically.

On Site Storage

Windows, doors and skylights for residential construction typically arrive on construction sites pre-glazed, while commercial construction applications often require that individual sheets of glass be delivered to the site and glazed at a later time or date.

In both types of construction, it is vital that materials be properly stored. The complex nature of construction projects and site management require well-planned and executed material delivery and storage.

The following is a list of recommended practices for the storage of glass on sites:

- Glass deliveries should be coordinated to minimize on-site storage durations. Subcontractors should work with the

general contractor or builder to select on-site under roof storage locations that avoid direct rain and water runoff, work areas of other trades, areas of high traffic, and to minimize material movement and handling.

- Individual sheets or cases of glass and pre-glazed materials should be secured, blocked, and braced to prevent falls.
- Blocks or supports should ensure that the bottom edge of materials will be kept well above potential sources of water.
- Storage of glass against walls should be avoided unless it can be determined that the wall is suitably sound for the task, eg single sheets of glass that still can be suitably secured.
- Storage area should provide secure, temporary covering that prevents direct water flow but ensures ventilation and stops condensation build-up on the glass.
- Ensure that stored materials are not exposed to activities of other trades such as welding, painting and insulating.
- Establish a program for daily inspection of stored glass to monitor conditions and ensure prompt corrective action when needed.

Work, Health And Safety Considerations

All new or unknown sites should have a prior risk assessment done as to suitability for glass storage.

All storage areas should be free from slip/trip hazards. Glass should be restrained at all times, especially during windy conditions.

When storing glass on trolleys in a 'static position', ensure trolley braking devices are engaged and restraining bars are used. Glass stored on frames should be evenly loaded on both sides of the frame and the frame stored on level ground.

Any cases of glass or endcaps stored in a vertical position needs to be appropriately restrained, eg Inverted T's or case props and stored on level ground.

Employers must provide information and any necessary training on the safe handling of glass panels to all workers involved in the unloading, onsite storage or placement of panels.

All employers should ensure that people onsite and the public are not put at risk from the storage of glass.

All glass stored should be clearly visible. This includes the marking of any protruding ends so that people cannot accidentally collide with the glass.