

## 4. STORAGE, HANDLING, CUTTING, FIXING AND FINISHING

### 4.1 General

Bad handling and poorly organised storage of wood-based panels can lead to significant wastage on building sites. The results of a study by the Building Research Establishment showed that for the main building materials the average wastage was in the order of 10%, with instances as high as 20% for some materials. With the current high emphasis of sustainable construction, it is important to take reasonable measures to minimise wastage.

Being reasonably durable and resilient, most wood-based panels can withstand a certain amount of abuse, but lack of care before and during construction can have an adverse effect. In addition to the strength of the panels, the surface appearance can be an important feature of the finished structure. Proper storage and handling can ensure that the final performance and appearance is as intended. (See Section 4.2 of PanelGuide).

As a natural material, wood contains moisture and the amount held within it varies with the temperature and relative humidity of the surrounding environment. Wood-based panels are no different from solid wood in this respect and their moisture content will change with changes in relative humidity and temperature. Changes in moisture content result in changes in mechanical properties and in dimensions (length, width and thickness). It is therefore important that the moisture content of a panel is as close as possible to its final in-service moisture content at the time of installation. This will, to a large extent, avoid any in-service distortion problems. (See Section 4.5 of PanelGuide).

The mechanical properties of wood-based panels also vary with moisture content and in structural applications it is essential that they are installed in the environment for which they have been designed. The moisture resistance of wood-based panels varies with product type, according to the specification, and again the use of a product in the wrong service class could lead to poor performance or premature failure.

Incorrect handling of wood-based panels can result in either damage to the panels or injury to the operative. It is therefore important that correct handling techniques are employed. (See Section 4.3 of PanelGuide). Likewise, incorrect machining can damage the panels or the operative. It is therefore important that all Health and Safety guidelines are adhered to when working with wood-based panels.

Guidance on the correct installation methods and on decoration and finishing is given in Sections 4.5, 4.6 and 4.7 of PanelGuide.