

## *Installing plasterboard to walls – single and double*

Pre-conditions

Preparation

Self-inspection

Execution



This **work instruction** is designed for use in detailed planning and preparation of work on construction projects. With thorough planning high levels of personal safety and optimal work apportionment can be achieved at the same time as the work can be organized efficiently and cost effectively.

Safety — Risk assessment

Work activity & Problem	P	C	Risk= P*C	Action
Overloading, stretching	10	50	500	Use transporting and lifting aids
Cluttered workplace = Twisting or fall injuries	3	70	210	Regular tidying
Sawing and Drilling	0,5	100	50	

Probability = P  
 Consequence = C  
 Risk = P \* C

**Assessment of probability**

P = 0,1	Very unlikely	(<1 times/10 years)
P = 1	Unlikely	(1 times/10 years)
P = 3	Low probability	(1 times/3 years)
P = 10	Relative probability	(1 times/year)
P = 30	Probable	(1 times/month)

**Assessment of consequences**

C=0,5	Trifle	
C=1	Tiny	( 1 - 2 days sick leave)
C=5	Small	( 3 - 7 days sick leave)
C=15	Tactile	( 8 - 29 - " - )
C=70	Severe	(30-299 - " - )
C=500	Very severe	(>300 - " - )

*Text from the Working Environment Authority's brochure Safer Construction Work*

## **Personal Protective Equipment § 71**

Safety helmet and protective footwear should be used unless this is clearly unnecessary. Other personal protective equipment such as eye protection, hearing protection and gloves should be worn when required.

Equipment and machinery

**Machinery and equipment**

- Screwdrivers, wire 10A
- Screw Machine
- Plaster knife
- Board Holder
- Foot Lift
  
- LevelL Carpenter's string
- Handsaw
- Edge cutter
- Junction box drill
- Junction box finder (Hole in One)
  
- Two-step paso trestles
- Trestle with wide standing surface
- Distribution wagon
- Filler
  
- Cables, junction boxes, lamps



## Materials

**Materials**

- 900 - 13 mm plasterboard
- 900 - 15 mm plasterboard to shaft
- Screw for single and double plasterboard
- Inspection covers
- Gypsum mortar
- Tape

***Calculating material consumption plasterboard and screw.***

Do not forget to add for waste about 15 - 20% for gypsum.

$$\text{Number 900 plasterboard wall} = \frac{\text{Running meter wall} \times \text{number of teams}}{0,9 \text{ (board width)}} \quad (\text{sum of both sides of the wall})$$

**Number of screws in the first team - with two teams**

Number of screws in the first team = approx 5 pcs/m<sup>2</sup> wall side

**Number of screws in the first and second layers of plasterboard**

Number of screws for one layer of plasterboard and the other team laying two layers of plasterboard = approx 15 pcs/m<sup>2</sup> wall side

### *Delivery and Storage*

Plasterboard can be exposed to mold attack in damp conditions. Transport must be carried out with enclosed vehicles so that the plasterboard is dry after transport regardless of the weather.

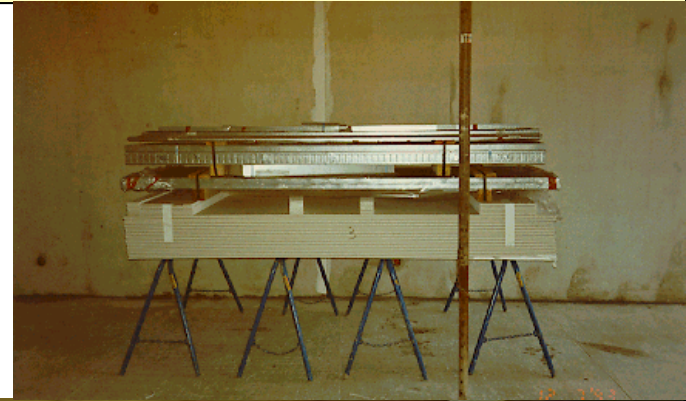
Order plastic sealed packages. Storage indoors should be in heated spaces or normal cold storage. Short intermediate storage of dry boards under a tarpaulin on a hard surface can be permitted for a maximum of 2 days.

Plastic sealed packages can be stored longer under a tarpaulin on a hard surface.

Storage under tarpaulins on non-paved areas (eg. plain land) should be avoided.

If it has to be done it shall be ensured that the packets are protected against soil moisture and ground contact.

When stored more than 1-2 days then the packages should be of sealed plastic.



### ***Off-site transfers of waste materials***

15-20 % of the plasterboard goes to the dump. Plan the handling and sorting of waste in order to minimize costs.



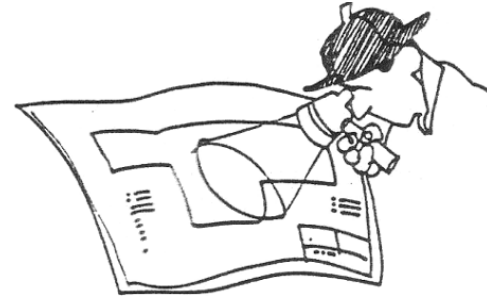
Self-inspection 1(2)  
 Template & instructions

No	Check	Method or equipment	Frequency	Result	Date Signature	Deviation/Remedy Approval/Non-A
1	Frame studding	Right dimensions and joist spacing				
2	Noggins	Reinforcements				
3	Plasterboard Team 1					
4	Insulation	Right size and quality				
5	Plasterboard Team 2	Jointing/splicing displacement >400 mm				
6	Plastic Foil					
7	Seals, penetrations	Sealing of the junction boxes				
8						
9						
10						
11						



## Quality criteria for the project and the product

- Study Drawings, Specifications and Inspection planning
- Think through the alternative **methods of production** and handling of materials, tools etc. that can meet the requirements



### *Pay particular attention to*

- Fix the boards, perform jointing and connections as described in the Specification and in accordance with the Manufacturer's instructions
- Do not mount damaged sheets
- Plaster ceilings normally installed before the plaster on the walls
- Specific sound or fire requirements apply in some cases

## Execution 1(4) Work activity

### ***Mounting the first layer - single plasterboard.***

The boards can be mounted vertically or horizontally. Horizontal mounting can be deployed when the board width suits the wall height or for very high walls.

Plasterboard to walls should be raised 5-10 mm from the floor. For this activity, there are special tools that also keeps the boards in place - Board Holders, as shown.

The board is pressed against the stud base and lifted towards the ceiling and fastened with screws.

### ***Two teams plaster boarding***

For walls with double gypsum boards the innermost board is separated 5-10 mm from the floor, ceiling and adjoining walls so that there is space for the acoustic seal.

The gypsum boards are mounted in the traditional way with staggered joints.

### ***No joints = overlapping***

Boards must not be jointed (= jointed ) says the AMA. It can sometime be tricky.



***Do not saw – preferably cut***

By cutting the plasterboards with a knife and breaking instead of cutting you avoid a lot of plaster dust.

The edges may be sanded which creates some small crumbs.



### ***Mounting the second layer - double plasterboard.***

Before doubling can be performed, the installers must have time to install their conduits - such as: electricity, HS (heat and sanitation), ventilation, control and regulation system. In addition, some walls shall be insulated.

When installing the second plasterboard layer it is necessary to drill holes for electricians boxes - so they do not disappear... There are tools such as: Hole in one, a transmitter (placed in the box) which together with a receiver allows you to drill accurately with a junction box drill. See the picture below.



*Mounting the second layer -  
double plasterboard.*

