

National Occupational Standards

Sector: Building and Construction

Occupation: Gypsum Boards Installer

MQF Level: 3

Units:

- GBI301: Apply Occupational Health and Safety during Work-Practices
- GBI302: Identify systems, equipment and components
- GBI303: Reading of drawings and calculations
- GBI304: Setting Out and Installation of gypsum boards

GBI301: Apply Occupational Health and Safety during Work-Practices

This unit is about being able to use safe procedures and safe work practices. The persons carrying out this work must possess the necessary knowledge and skills to ensure that their actions do not create health and safety risks to themselves and others, identify risks and hazards associated within the working environment, tools and equipment and materials and substances used.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Carry out safe working practices to prevent hazards and to ensure the safety of oneself, workers and members of the public.
2. Carry out safe working practices when using appropriate equipment and materials to prevent damages to work areas and injuries to oneself and 3rd parties.
3. Carry out the safe erection and dismantling of system access platforms less than 2m high.
4. Ensure that the scaffolding is safe to use.
5. Set up safety barriers around a work environment hazard to protect colleagues and members of the public.
6. Use protective clothing and safety equipment according to specifications issued by manufacturers and know the whereabouts of first-aid equipment.
7. Use, handle and store materials hazardous to health in a safe manner.
8. Carry out a risk assessment to cover the job assigned and the working area.
9. Locate and switch-off temporary or fixed electrical switch gear, systems isolating valves as instructed in the health and safety procedures.

Required Knowledge

The Level 3 Gypsum Boards Installer must know and explain:

1. The roles and responsibilities of themselves and others under the Health and Safety Act.
2. The health and safety risks associated with their role which includes tools, materials and equipment used and working practices and procedures.
3. The potential hazardous material commonly found at the workplace.
4. The procedures for dealing with potential hazardous material in the place of work.
5. The health concerns associated with the workplace and safe practices when carrying out work such as, manual lifting.
6. The hazards and potential hazards at the place of work (such as electricity, slippery and uneven surfaces, dust and fumes, handling and transporting, contaminants and irritants, fire, heights, improper use of tools and equipment).
7. The importance of being alert to the presence of hazards in the place of work.
8. The responsible persons to whom to report health and safety matters or any other occurring hazards.
9. The emergency procedures in the place of work.
10. The first aid facilities that exist within the work area.
11. The correct procedure to make use of barricades, industrial hurdles, and warning signs to make areas clearly marked out of bounds.
12. The safety procedures when using scaffold platforms.
13. The necessary safety precautions including the use of protective clothing and equipment for a range of applications including situations when helping other sector trade persons.
14. The methods used for protecting customers' property.

15. When it is required to close domestic water services from the main water supply; switch off electrical supply;
16. Any toxic effect from materials commonly used at construction sites.
17. The preventative and remedial actions to be taken in the case of exposure to materials hazardous to health.

Required Skills

The Level 3 Gypsum Boards Installer must be able to:

1. Identify which health and safety procedures are relevant to the working environment.
2. Seek expert assistance when help is needed.
3. Ensure compliance with duties and obligations as defined by the Occupational Health and Safety Act 2000 and recent amendments.
4. Follow workplace policies and employers' instructions for the safe use and maintenance of tools and equipment.
5. Control health and safety hazards within the job responsibility.
6. Report any hazards which may present risk to relevant persons.
7. Follow correct procedures in the event of injuries to themselves or others.
8. Take remedial action where work methods are not in line with control measures noted and identified from risk assessment.
9. Adhere to work production and installation processes as agreed with the employer.
10. Apply the necessary skills to erect, use and dismantle access equipment (at height less than 2m).
11. Read, interpret and install warning signs and set up safety barriers around working areas.
12. Equip oneself with the appropriate protective clothing and safety equipment for the setting out of steel/ wood frames to support gypsum boards and for the installation of the gypsum boards.
13. Use and store materials hazardous to health in a safe manner.
14. Monitor the workplace and maintain good housekeeping whilst keeping it free from hazards.
15. Communicate complex information regarding unfamiliar and unpredictable situations to colleagues and supervisors.
16. Advocate appropriate health and safety procedures.

GBI302: Identify systems, equipment and components

This unit is about identifying the different materials for specific applications based on their technical properties and to identify direct and indirect environmental impacts.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Distinguish between type of gypsum backing boards, core boards, exterior boards, soffit boards, gypsum ceiling boards, fire retardant gypsum boards and moisture resistant gypsum boards and any other type of boards (excluding timber).
2. Distinguish between drying type joint compound, setting tape joint compound, skim coat wall primer, joint tape, paper tape and fiberglass tape.
3. Distinguish between a variety of metal furring, beams and perimeter channels.

Required Knowledge

The Level 3 Gypsum Boards Installer must know and explain:

1. The range of materials, products and procedures applicable to the relevant work and their benefits, such as, beads, trims, framing, insulation, fasteners, adhesives, joint compounds, coatings, tapes, plaster finishing and textures.
2. Horizontal, vertical and inclined planes and the use of levelling and aligning equipment for situations.
3. The different types of dry compound powders mixes.
4. Methods and techniques to minimise wastage and to protect the environment.
5. Sound isolation methods and fittings available.
6. Fire retardant methods and materials available.
7. Running dimensions, one off measurements and methods to space profiles equally spaced.

Required Skills

The Level 3 Gypsum Boards Installer must be able to:

1. Distinguish between and apply the different types of materials, products, methods and procedures applicable to the installation of gypsum boards such as framing practices and procedures for wood and steel framing, chase walls, furred ceilings and walls, and door and window openings.
2. Distinguish between and apply a range of damp-proof materials.
3. Distinguish between and install a range of metal furring profiles.
4. Distinguish between the different types of cutting disks/ blades, manual and powered nibblers and shearers.
5. Apply procedures to minimise off-cuts and construction material waste and dispose construction waste as stipulated in the environmental protection act.

GBI303: Reading of drawings and calculations

This unit is about understanding and applying dimensions from drawings and calculating quantities in the preparation, costing and estimation.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Read and interpret plans and specifications to select type of gypsum installation materials.
2. Read and interpret building drawings to establish important building datum grids and levels.
3. Calculate the quantities of required gypsum sheets and fittings to meet work schedules.
4. Calculate the quantity of consumables required to meet work schedules.
5. Check and investigate deviations, misalignments against tolerances given.

Required Knowledge

The Level 3 Gypsum Boards Installer must know and explain:

1. Compilations of overall linear dimensions from drawings.
2. Calculations including those involving quantities and costs of materials.
3. Tools and equipment used to set out levels and datum grids.
4. The correct procedure for setting out work systems.
5. Scale working drawings from plans.
6. Levelling equipment available specifically designed for installations on inclined planes.

Required Skills

The Level 3 Gypsum Boards Installer must be able to:

1. Translate drawing details to setting out of work.
2. Check with specialised levelling equipment for accuracy.
3. Translate quality specifications on actual work.
4. Calculate quantity of gypsum panels, frames, fittings and other materials required for a job.
5. Take-off quantities from drawing.
6. Measure and comprehend calculations using metric units.
7. Read and interpret annotated building drawings.

GBI304: Setting Out and Installation of gypsum boards

This Unit is about using tools and equipment to set out and install gypsum boards.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Prepare walls with asphalt strips and other moisture barriers as stipulated in drawings.
2. Measure, mark and cut to size gypsum boards with appropriate equipment.
3. Interpret instructions and install single and multi-layer configurations.
4. Install gypsum boards around columns leaving a gap as instructed in specifications.
5. Set out furring profiles with equal spacing in between to meet installation specifications.
6. Set out datum grid lines and levels to lay frames within specified tolerance.
7. Set structural frames around doors and windows while noting and correcting any skewed dimensions as necessary.
8. Assemble and use appropriately access working platforms.
9. Install frames to meet specified tolerance such as joint alignment, level alignment, vertical alignment at corners and within bays, and lateral alignment.
10. Perform paper joint treatment and surface preparation, installation of corner beads, trim and control joints.
11. Perform hand and mechanical finishing with setting-type and drying-type compounds;
12. Carry out repairs of damaged gypsum boards.
13. Use the spirit level, plumb line, straight edge, builders square, laser instruments and other levelling equipment to set out work.
14. Check rooms and shafts for skewed misalignments.
15. Set cavity insulation where necessary.
16. Use vacuum, wetting agents and continuous ventilation appropriately to control dust.
17. Check traceability of data sheets, sound and fire-retardant material certificates to material supplied and installed.

Required Knowledge

The Level 3 Gypsum Boards Installer must know and explain:

1. The methods of use and maintenance of tools and equipment.
2. Types of pre-decorated panels, water resistant panels, sheeting, insulation, fixtures and special materials.
3. Types of fasteners requirements and special constructions such as curved surfaces, arches, soffits etc.
4. Framing installation spacing; base and lath applications, accessories and control joints, plaster missing and application and finishing options.
5. General specifications of acoustical ceiling systems, procedures to obtain sound control and fire safety.
6. General specifications of area separation walls, cavity walls, fire proofing, curtain wall/ fire containment systems, thermal insulation, air water and vapour control.
7. Adhesive applications to install boards.
8. Recommended frequency of furring frames and supports.
9. Type of primers and stabilizers to preserve gypsum boards.
10. Quality and installation methods of gypsum boards appropriate for curved surfaces.

Required Skills

The Level 3 Gypsum Boards Installer must be able to:

1. Confirm that materials, tools and equipment required are fit for their intended purpose.
2. Identify, use, clean and store the basic hand tools.
3. Read and interpret manufacturer instructions and data sheets regarding the installation procedures of various types of gypsum boards.
4. Control the quality and accuracy of cuts using hand and power tools and equipment.
5. Check the quality of installed work against specifications.
6. Read, interpret and convert metric linear dimensions to meters, cm and mm.
7. Read, interpret and project 90/45-degree angular measurements.
8. Identify datum lines and establish procedures to check shaft/ open spaces/ rooms for skewed misalignment as work progress.
9. Adopt appropriate installation procedures for ceilings and walls inspection hatches.
10. Apply the recommended frequency of furring frames and supports.
11. Adopt appropriate installation procedures for walls ventilation louvers to reduce humidity; light and other systems fittings.
12. Adopt appropriate installation procedures to incorporate ceilings or walls with protruding or recessed bulkheads.
13. Use appropriately lifting gear to handle gypsum boards, profiles and other equipment.