# PROFM21 (SQA Unit Code – HE70 04)
# Prepare resources for use in making hand-crafted furniture

**Overview**

This standard addresses the competence required to prepare the different sorts of resources that will be used in the making of hand-crafted furniture. This involves:

1. checking the condition and suitability of materials
2. marking out materials
3. preparing surfaces
4. identifying and preparing different tools and equipment needed for the operations to be carried out
5. selecting and preparing wood working adhesives
6. working in ways which maintain your own and others' safety

## Performance criteria

You must be able to:

- P1 select the correct tools and equipment to carry out the work specified
- P2 check and confirm that the tools and equipment are in working condition and set aside any that are not
- P3 make sure that the correct equipment components are selected and set in place
- P4 make sure that equipment is correctly set up for operation and that guards are in place
- P5 select and lay out any workshop devices that will be needed to complete the specified work
- P6 clear and clean adequate working space for the tools and equipment to be used and the work to be done
- P7 make sure that environmental conditions are suitable for the work to be carried out
- P8 handle tools and equipment safely
- P9 organise the tools you will need so that you can work effectively and keep your work area tidy
- P10 make sure that you have clear and complete details of the required materials and preparations
- P11 select materials of the required types and dimensions
- P12 check and confirm that the selected materials are free of irregularities and in a suitable condition to be worked on
- P13 determine the face side of the material to be used for the best match to:
  - P13.1 structural requirements;
  - P13.2 the desired visual effect
- P14 accurately measure the material to the required tolerances, keeping wastage as low as possible
- P15 make all markings clearly and cleanly
- P16 use the appropriate technique and tools to produce the required surface finish
- P17 follow safe working procedures and wear the appropriate personal protective equipment (PPE) for the technique being used
- P18 return tools to the correct storage locations when not in use and report any

which require maintenance

P19 wear the appropriate personal protective equipment (PPE) for the adhesive to be used

P20 check that the specified adhesives are available and in date

P21 select adhesives which match the specification characteristics

P22 ensure that extraction facilities are operating effectively before working with adhesives which require you to take this precaution

P23 immediately report any problems with extraction and ventilation facilities

P24 mix the adhesives to the specified consistency and in the required volume

P25 maintain the adhesives in the required condition until needed

P26 deal promptly and safely with spillages and splashes

P27 follow relevant health and safety procedures when handling adhesives

P28 make sure that unused materials are accurately labelled and return them to the designated storage areas

P29 dispose of wastes safely using designated procedures and disposal areas

## Knowledge and understanding

You need to know and understand:

K1 the different sorts of workshop tools, equipment and devices that are used in making wooden furniture by hand

K2 what to look for when checking the condition of tools and equipment

K3 what components are needed to achieve different specifications and what the implications are of using the wrong components

K4 what the implications are of setting up equipment incorrectly

K5 the implications for your work of the relevant regulations, including where to find out about relevant risk assessment and control measures that have been set by your organisation

K6 what sorts of materials, tools and techniques are used for making hand-crafted furniture and why

K7 why the face mark is used, what it is used for and why it relates to the movement of timber

K8 how to identify the face side of material and why correct and accurate surface preparation is important

K9 what the growth characteristics are of different hard and soft woods and what implications this has for how to work with them

K10 what the handling characteristics are of different sorts of wood composites and what implications this has for how to work with them

K11 how to handle materials without causing damage

K12 units of measurement used to specify length, width, thickness and performance accuracy and the tolerance levels typically used in hand-crafted furniture

K13 the different sorts of adhesives that are used in making wooden furniture by hand and what each is used for

K14 why it is so important to comply fully with the relevant health and safety procedures

K15 the pot life, shelf life and open time, curing time and clamping time of different adhesives and their implications for your work

K16 how to tell when the required consistency has been achieved and what actions are needed to keep adhesives in working condition

K17 what personal protective equipment (PPE) should be worn when handling adhesives and why

K18 why it is important to deal promptly, safely and correctly with splashes and spillages of adhesives

K19 why it is important that waste materials are disposed of safely

K20 who you should report any problems with the extraction and ventilation to

K21 how to dispose of waste in accordance with current legislation

## Additional information

**Scope**

**Adhesives**

There are a range of adhesives in common commercial use within hand-crafted furniture production. They include polyvinyl acetate, urea or phenol formaldehydes, animal based glues, resorcinol, epoxy resins and cyanide acrylic base compounds. Many can pose significant risks to health and safety. These will have been taken account of in the risk assessments and procedures set in place to conform to COSHH legislation and which a competent person will follow in full.

**Environmental conditions**

The cleanliness, temperature, ventilation and humidity characteristics of the working area.

**Materials**

The materials used in constructing hand-crafted furniture. These include softwoods, hardwoods and wood composites.

**Personal Protective Equipment (PPE)**

Ear, eye and respiratory protection as well as protective gloves, overalls, footwear, and barrier, cleansing and after-care cream.

**Specifications**

Specifications are details as to the work to be carried out and the materials, adhesives, tools, equipment and work area selection and preparations needed.

**Surface finish**

Smooth, planed and sanded surface finishes will be needed, depending on the intended use of the material within the furniture item.

**Techniques**

Sawing, planing, sanding and jointing.

**Tools and equipment**

The chisels, planes, cramps, saws, drills, drill bits, squares, mallets, scrapers, honing stones, knives and measuring devices used in the making of hand-crafted furniture. Also includes powered tools such as sanders, routers, drills and power saws as well as workshop tools and devices such as bench hooks, shooting boards, mitre blocks of different angles, scratch stock. Drill bits, work holding devices, chucks and key, blades and abrasives.

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| **Original URN** | PROFFI237 |
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| **Suite** | Furniture Making |
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