

PRODUCE PRINTED FABRICS

UNIT CODE: ENG/OS/TXP/CR/03/5/A

UNIT DESCRIPTION

This unit describes the competencies required by a textile processing craft person to produce printed fabrics. It involves competencies required to obtain fabric for printing, prepare printing recipe, prepare print screen, set up printing machine, operate printing machine and document printing process

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
<p>These describe the key outcomes which make up workplace function</p>	<p>These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the Range)</i></p>
<p>1. Obtain Fabric for Printing</p>	<p>1.1 Work order is received and interpreted according to customer requirements</p> <p>1.2 Requisition for fabric is prepared and issued according to organisational procedures</p> <p>1.3 Fabric is obtained according to organisational procedures</p> <p>1.4 Fabric is delivered to inspection laboratory according to organisational procedures</p>
<p>2. Prepare Printing Recipe</p>	<p>2.1 Safety is observed according to OSH act</p> <p>2.2 Standard sample and/or pantone shade card is obtained according to organisational procedures</p> <p>2.3 Printing method is determined according to product requirement</p> <p>2.4 Printing recipe components are obtained according to organisational procedures</p> <p>2.5 Printing chemicals are weighed separately on precision balance according to organisational procedures</p> <p>2.6 Printing recipe mixing is done according to organisational procedures</p> <p>2.7 Shade developed is checked against standard sample shade</p> <p>2.8 Equipment is monitored for smooth process according to organisational procedures</p>
<p>3. Prepare Print Screen</p>	<p>3.1 Emulsion is mixed according to organisational procedures</p> <p>3.2 Screen is cleaned according to organisational procedures and quality requirements</p>

	<p>3.3 Screen is dried according to organisational procedures and quality requirements</p> <p>3.4 Artwork is obtained according to organisational procedures</p> <p>3.5 Screen is exposed to UV according to organisational procedures</p> <p>3.6 Screen is rinsed according to organisational procedures</p>
4. Set Up Printing Machine	<p>4.1 Safety is observed according to OSH act</p> <p>4.2 Machine operation manual is obtained according to organisational procedures</p> <p>4.3 Necessary tools and consumables are obtained according to operation manual</p> <p>4.4 Fabric beam is obtained according to product specifications.</p> <p>4.5 Fabric beam is mounted onto printing machine according to manufacturer's manual and product design.</p> <p>4.6 Printing machine parameters are set up according to operation manual</p>
5. Operate Printing Machine	<p>5.1 Machine safety and operation procedures are observed according to manufacturer manuals and OSHA</p> <p>5.2 Printing machine is operated to workplace procedure</p> <p>5.3 Printing process is monitored according to SOP.</p> <p>5.4 Printing faults are identified and rectified where possible according to SOP</p> <p>5.5 Major faults are reported according to SOP</p> <p>5.6 Printed fabric rolls are doffed according to SOP.</p> <p>5.7 Printed fabric rolls are stored according to organizational procedures.</p> <p>5.8 Printing waste is disposed according to organisational procedure</p>
6. Document Printing Process	<p>6.1 Documentation tools are obtained according to organisational procedures</p> <p>6.2 Printing quality control tests are documented according to organisational procedures</p> <p>6.3 Printing process is documented according to organisational procedures</p> <p>6.4 Report is generated according to organizational procedures</p>

RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variable	Range
1. Printing methods may include but is not limited to:	<ul style="list-style-type: none">• Block printing• Screen printing• Roller printing• Heat transfer printing• Digital printing
2. Printing recipe components may include but is not limited to:	<ul style="list-style-type: none">• Thickener• Wetting agents• Dyestuff of pigments• Defoaming agents• Oxidizing and reducing agents• Solvent dispersing agents
3. Necessary tools and equipment may include but is not limited to:	<ul style="list-style-type: none">• Oil• Grease• Grease gun
4. Printing faults may include but is not limited to:	<ul style="list-style-type: none">• Bleeding• Stick-ins• Flushing/wicking• Unwanted pigment marking on fabric• Crack or miss alignment in transfer printed fabric• Color out

REQUIRED KNOWLEDGE

The individual needs to demonstrate knowledge of:

- Printing process, faults, and remedies
- Machine parts and components
- Printing faults
- Standard operating procedures (SOP) of printing
- Printing components
- Printing methods
- Washing methods
- Printing quality parameters

- Safety practices and procedures
- Documentation
- Procedure for safe disposal of waste materials
- Mathematics understanding
- Physics

REQUIRED SKILLS

The individual needs to demonstrate skills in:

- Perform printing process
- Check printing faults and remedies
- Observe safety
- Prepare printing recipe
- Adjust machine parameters
- Machine operation
- Planning and sequencing tasks
- Identifying non-compliances
- Effective communication skills– oral/written
- Data collection
- Manage work efficiently
- Time management
- Sense color effectively
- Troubleshooting
- House keeping
- Energy conservation
- Good decision making
- Time management
- Report writing
- Record keeping

EVIDENCE GUIDE

This provides advice on assessment and must be in conjunction with the performance criteria, required skills and knowledge and range.

<p>1. Critical Aspects of Competency.</p>	<p>1.1 Obtained fabric for printing 1.2 Prepared printing recipe 1.3 Prepared print screen 1.4 Set up printing machine 1.5 Operated printing machine 1.6 Documented printing process</p>
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2. Resource Implications.	2.1 Fabric 2.2 PPE 2.3 Printing chemicals 2.4 Printing machine 2.5 Washing chemicals 2.6 Thermometer 2.7 Printing reference standards 2.8 Printing samples 2.9 Documentation tool and equipment
3. Methods of Assessment.	<i>Competency may be assessed through:</i> 3.1 Practical 3.2 Observation 3.3 Questionnaire 3.4 Case studies 3.5 Written examinations 3.6 Oral presentation
4. Context of Assessment.	Competency may be assessed individually in an actual workplace or in work-simulated conditions within accredited institutions.
5. Guidance information for assessment.	This unit may be assessed on an integrated basis with others within this occupational sector.