

NONWOVEN FABRICS

UNIT CODE:ENG/CU/TEX/CR/05/6/A

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Produce Nonwoven Fabrics

Duration of Unit: 150 hours

Unit Description

This unit describes the competencies required by a textile technician to produce nonwoven fabric. It involves competencies required to produce laid fibre webs, produce bonded nonwoven fabrics, control production and quality parameters and producing finished nonwoven fabrics

Summary of Learning Outcomes

1. Produce laid fibre webs
2. Produce bonded nonwoven fabrics
3. Control production and quality parameters
4. Produce finished nonwoven fabrics

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Produce laid fiber webs	<ul style="list-style-type: none">• Textile Fibre• Fibre preparation• Carding process• Operation and setting of carding machines• Web formation• Operation and setting of fibre laying machines• Fibre laying procedures• Fibre laying techniques• Web laying methods	<ul style="list-style-type: none">• Oral questions• Written tests• Observation of trainees• Assignments• Practical's• Written report
2. Produce bonded nonwoven fabrics	<ul style="list-style-type: none">• Bonding principles• Bonding methods• Setting and controlling of bonding parameters• Preparation of resin	<ul style="list-style-type: none">• Oral questions• Written tests• Observation of trainees• Assignments• Practical

	<ul style="list-style-type: none"> • Operation and setting of Bonding machines • Bonding procedures • Bonding fault identification and rectification • Curing techniques 	<ul style="list-style-type: none"> • Written report
3. Control production and quality parameters	<ul style="list-style-type: none"> • Controlling resin parameters • Defects in nonwoven fabrics and their remedies • Optimization of production process • Controlling fabric properties 	<ul style="list-style-type: none"> • Oral questions • Written tests • Observation of trainees • Assignments • Practical • Written report
4. Produce Finished nonwoven fabric	<ul style="list-style-type: none"> • Ways of finishing nonwovens • Types of finishes • Purposes of finishing • Finishing of non-woven fabric • Non-woven finishing machines • Operation and setting procedures of nonwoven finishing machines • Finished nonwoven fabric process monitoring and control • Maintenance of nonwoven machines 	<ul style="list-style-type: none"> • Oral questions • Written tests • Observation of trainees • Assignments • Practical • Written report

Suggested Delivery Instruction

- Instructor led facilitation of theory
- Demonstration by trainer
- Practical work by trainee
- Viewing of related videos
- Visit to nonwoven fabric factory

Recommended Resources

- Fibres
- Resins and bonding chemicals
- Fabric
- Yarns
- Bonding machines

- Laying machines
- Curing and dyeing machines
- Finishing machines
- Cutting machines
- Heating equipment

easytvvet.com