RSDC
RUBBER SKILL DEVELOPMENT COUNCIL

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GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

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National Skill Development Corporation
Transforming the skill landscape

QUALIFICATIONS PACK- OCCUPATIONAL STANDARDS FOR PLASTICS INDUSTRY

Contents

What are Occupational Standards (OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack- Machine Operator Assistant - Plastics Sacks

SECTOR: RUBBER

SUB SECTOR: MANUFACTURING/ PLASTICS PROCESSING

OCCUPATION: PLASTICS SAKS

REFERENCE ID: RSC/Q4802 (CPC/Q1103)

ALIGNED TO:

Brief Job Description:

The individual will be assisting the machine operator. They are assisting for Smooth and safe operation/repair/maintenance of the equipment at site, help the operator for producing Tape/yarn from plastics resin by involves operating semi & fully automatic extrusion and post extrusion machines. They have basic knowledge of troubleshooting process problems and performing minor maintenance to ensure continued operation of the production line.

Personal Attributes:

This job requires the basic communication & Written abilities for the individuals to be result oriented. Basic Knowledge of maintaining equipments & housekeeping process, ability to do physical tasks like lifting, holding etc. and dexterity. He must also demonstrate strong work ethics, courteously with co-workers, and must be good with following instructions of the supervisor/operator.

Job Details

Qualifications Pack Code	**RSC/Q4802 (CPC/Q1103)**		
Job Role	**Machine Operator Assistant - Plastics Sacks**		
Credits (NSQF)	**24**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
Sub Sector	**Manufacturing / Plastics Processing**	**Last reviewed on**	**26/12/2016**
Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**
NSQC Clearance on	**21/07/2016**		

Job Role	**Machine Operator Assistant- Plastics Sacks**
Role Description	This role is involved in assisting the operator and the entire team in peripheral activities/ non-core activities in the production process.
NSQF level **Minimum Educational Qualifications*** **Maximum Educational Qualifications***	3 VIIIth Standard
Training (Suggested but not mandatory)	No previous training required
Minimum Job Entry Age	18
Experience	No previous experience required
Applicable National Occupational Standards (NOS)	1. RSC/N4101 (CPC/N0411): Maintain basic health and safety practices at the workplace, 5S. 2. RSC/N4102 (CPC/N0412): Fitting Tools Measuring Equipment's & Practice 3. RSC/N4103 (CPC/N0413): Introduction to Polymers and thermoplastics Materials 4. RSC/N4804 (CPC/N1114): Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure 5. RSC/N4805 (CPC/N1115): Basic Knowledge of Weaving technology and Loom operation (Circular) 6. RSC/N4806 (CPC/N1116): Auxiliary equipment's used in Plastics Sack and Tape Production 7. RSC/N4108 (CPC/N0418): Basic Knowledge of Communication/soft skills.
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Occupational Standards (OS)	OS are Occupational Standards which apply uniquely in the Indian context
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.

Unit Code	Unit Code is a unique identifier for a OS unit, which can be denoted with an '**N**'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.

Acronyms

Keywords /Terms	Description
OS	Occupational Standard(s)
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
NSQF	National Skills Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack

National Occupational Standards

Overview

This unit Covers health, safety and security at the work place. This includes procedures and practices that candidates need to follow to help maintain a healthy, safe and secure work environment.

National Occupational Standards

Unit Code	**RSC/N4101 (CPC/N 0411)**
Unit Title (Task)	**Maintain basic health and safety practices at the workplace, 5S**
Description	This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace. It covers responsibilities towards self, others, assets and the environment. It includes understanding of risks & hazards in the workplace, along with common techniques to minimize risk, deal with accidents, emergencies etc. It covers knowledge of fire safety, common first aid applications and safe practice. This OS is about ensuring all 5S activities both at the shop floor and the office area to facilitate increase in work productivity.
Scope	The role holder will be responsible for • Health and safety procedure. • Fire safety procedure. • Emergencies, rescue and first aid procedures. • Ensure sorting, stream lining, storage and documentation, cleaning, standardization and sustenance across the plant premises of the organization.
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Health and safety	The individual on the job should ensure to: PC1. Wear protective clothing/equipment for specific tasks and work conditions PC2. Carry out safe working practices while dealing with hazards to ensure the safety of Self and others. PC3. Ensure good housekeeping practices at all times
Fire safety	The individual on the job should be able to: PC4. Use the various appropriate fire extinguishers on different types of fires correctly PC5. Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.
Emergencies, rescue and first aid procedures.	PC6. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous / unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine. PC7. Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc, Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations. PC8. Create awareness amongst others by sharing information on the identified risks.

Ensure sorting, stream lining, storage and documentation, cleaning, standardization and sustenance across the plant premises of the organization.	PC9. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un- necessary items are not cluttering the workbenches or work surfaces. PC10. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions PC11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP PC12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places PC13. Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions PC14. Ensure that areas of material storage are not overflowing PC15. Ensure properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required PC16. Return of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area PC17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards PC18. Follow the proper labelling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists PC19. Ensure to check the items in the respective areas have been identified as broken or damaged PC20. Follow the given instructions and check for labelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc. PC21. To make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. The relevant standards, procedures and policies related to Health, Safety and Environment followed in the company KA2. The emergency handling procedures & hierarchy for escalation
B. Technical Knowledge	**The user/individual on the job needs to know and understand:** KB1. The basic knowledge of Safety procedures (fire fighting, first aid) within the organization KB2. The basic knowledge of various types of PPEs and their usage

	KB3. The basic knowledge of risks/hazards associated with each occupation in the organization KB4. The knowledge of personal hygiene and how an individual contribute towards creating a highly safe and clean working environment the individual on the job needs to know and understand. KB5. The meaning of "hazards" and "risks" KB6 The health and safety hazards commonly present in the work environment and related precautions KB7. The possible causes of risk, hazard or accident in the workplace and why risk and/or accidents are possible KB8. The Possible causes of risk and accident (due to oil leakage) KB9. Methods of accident prevention KB9. Safe working practices when working with tools and machines KB10. Safe working practices while working at various hazardous sites KB11. To know the where to find all the general health and safety equipment in the workplace KB12. Various dangers associated with the use of electrical equipment KB13. Preventative and remedial actions to be taken in the case of exposure to toxic materials KB14. The Importance of using protective clothing/equipment while working KB15. Precautionary activities to prevent the fire accident KB16. Various causes of fire KB17. To know the techniques of using the different fire extinguishers KB18. To know the different methods of extinguishing fire KB19. To know the different materials used for extinguishing fire KB20. Rescue techniques applied during a fire hazard KB21. Various types of safety signs and what they mean KB22. To know the appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries KB23. To know the content of written accident report KB24. Potential injuries and ill health associated with incorrect manual handing KB25. Safe lifting and carrying practices KB26. Personal safety, health and dignity issues relating to the movement of a person by others KB27. Potential impact to a person who is moved incorrectly KB28. To have basic knowledge of 5S procedures KB29. To know the various types 5s practices followed in various areas KB30. Understand to the 5S checklists provided in the department/ team KB31. To have skills to identify useful & non useful items KB32. To have knowledge of labels , signs & colours used as indicators KB33. To have knowledge on how to sort and store various types of tools, equipment, material etc. KB34. To know , how to identify various types of waste products KB35. Understand to the impact of waste/ dirt/ dust/unwanted substances on the

	process/ environment/ machinery/ human body. KB36. To have knowledge of best ways of cleaning & waste disposal
Skills (S) [Optional]	
Element	**Skills**
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Understand basic level notes and observations.
	Reading Skills
	The user/individual on the job needs to know and understand about the: SA2. safety instructions put up across the plant premises SA3. Safety precautions mentioned in equipment manuals and panels and understand the potential risks associated
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. Effectively communicate information to team members SA5. Inform employees in the plant and concerned functions about events, Incidents & potential risks observed related to Safety, Health and Environment. SA6. Question operator/ supervisor in order to understand the safety related issues SA7. Attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
B. Professional Skills	**Plan and Organize**
	The user/individual on the job needs to know and understand how to: SB1. Process the work order and jobs received from the internal customers. SB2. Design documents received from internal customers SB3. Understand & organize all process/ equipment manuals so that sorting out information is fast.
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB4. Use common sense and make judgments during day to day basis SB5. Use intuition to detect any potential problems which could arise during operations
	Desire to learn and take initiatives
	The user/individual on the job needs to know and understand how to: SB6. Follow instructions and work on areas of improvement identified SB7. Complete the assigned tasks with minimum supervision SB8. Complete the job defined by the supervisor within the timelines and quality norms

RSC/N4101 (CPC/N0411) Maintain basic health & Safety Practices at the workplace, 5S

NOS Version Control

NOS Code	**RSC/N4101 (CPC/N 0411)**		
Credits (NSQF)	**2**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
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Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**

National Occupational Standards

Overview

This unit covers Basic Knowledge of fitting operations on machining components using hand tools to make shape of the component from raw material as per given drawing specifications. Basic knowledge about performing fitting operation to maintain blow molding machine and mold.

National Occupational Standards

Unit Code	**RSC/N4102 (CPC/N0412)**
Unit Title (Task)	**Fitting Tools Measuring Equipment's and Practice**
Description	This OS unit give Basic knowledge to candidates for fitting of machining components using hand tools and manually operated machines, to form the shape of a component from raw material, as per given specifications in the drawing. This involves assisting for smooth & safe operation/repair/maintenance of the equipment at site. The candidate will be expected to perform under minimum supervision, taking self-interest at work and for the quality and accuracy of the work.
Scope	The blow molding person will be responsible for • Working safely • Basic Knowledge of fitting operations • Marking components • Basic knowledge about performing fitting operation to maintain blow molding machine and mold.
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Working safely	**The individual on the job shall be able to:** PC1 Comply with health and safety, environmental and other relevant regulations PC2 Adhere procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing die fitting operations PC3 To work following the laid down procedures and instructions PC4 Ensure work area is clean and safe from hazards PC5 Ensure that all tools, equipment, power tool cables, extension leads are in a safe and usable condition
Preparing for fitting operations	**The individual on the job shall be able to:** PC6 Adhere to job specification from a valid and approved source PC7 Carry out the job requirements from the job specification document properly PC8 Report to operator the information time to time. PC9 Ensure the fitting operations as per procedure PC10 Ensure that all calibrated measuring instruments used. PC11 Ensure that the components used are free from foreign objects, dirt and corrosion PC12 Obtain appropriate tools and measuring instruments. PC13 Ensure that work pieces as per job requirements using appropriate holding devices
Marking components	**The individual on the job shall be able to:** PC14 Help the operator while marking specified features with the help of marking-out methods on the work pieces as per job specification by using appropriate measuring and marking tools.
Performing fitting operations on machining components using hand tools and	**The individual on the job should be able to:** PC15 Ensure that different fitting operations on various forms of metal components using a range of hand tools and manually operated machines PC16 Carrying & return all tools and equipment to the correct location on completion of the fitting activities

conventional machines e.g. Drilling and Shaper	PC17 Clean the work area in a safe and tidy condition on completion of job activities
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	**The individual on the job needs to know and understand:** KA1. The policies and procedures followed in the company relevant to own employment and performance conditions KA2. The health and safety requirements in the work place KA3. working in clean and safe environment KA4. About the job responsibilities and information related to employment terms, entitlements, job role and responsibilities KA5. Reporting mechanism, department functions and procedures in the work place KA6. The related workforce and their responsibilities within the work area KA7. The procedures for reporting at work and employment related issues.
B. Technical Knowledge	**The individual on the job needs to know and understand:** KB1. The specific safe working practices, fitting procedures KB2. The hazards associated with carrying out the fitting operations and how can they be minimized KB3. The personal protective equipment to be used during the fitting activities and where can it be obtained KB4. The common terminology used in fitting KB5. The importance of following specified fitting sequences and procedures KB6. The importance and procedures of ensuring suitability of work piece and consumables for the specified job **Suitability of work pieces and consumables**: e.g. Correct type and code; correct form; correct dimensions; damage free; correctly issued KB7. The tools and equipment used for the fitting operations KB8. The importance and procedures to ensure that tools and equipment are in a safe and usable condition KB9. The importance of securing the work piece correctly using appropriate devices and mechanisms KB10. The common problems that can occur in the fitting operations and their implications KB11. The correct procedures to address problems commonly encountered during fitting operations KB12. The importance of reporting problems immediately and accurately.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills** **The user/individual on the job needs to know and understand how to:** SA1. Discuss task lists, schedules, and work-loads with co-workers SA2. Question internal customers/ Moulding shop supervisor appropriately in

	order to understand the nature of the problem and make a diagnosis
	Reading Skills
	The user/individual on the job needs to know and understand how to: SB1 Communicate problems appropriately to others SB2. Identify sources of information and support for problem solving SB3. Seek assistance and support from other sources to solve problems SB4. Identify effective resolution techniques SB5. Select and apply resolution techniques SB6. Seek evidence for problem resolution
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SB7. Understand prioritize and sequence work operations as per job requirements SB8. Understand basic concepts of shop-floor work productivity including waste reduction, efficient material usage and optimization of time
	Initiative and Enterprise
	The individual on the job needs to know and understand how to: SB9. Undertake and express new ideas and initiatives to others SB10. Participate in improvement procedures including process, quality and customer relationships SB11. Competencies in new and different situations to achieve more
	Desire to learn and take initiatives
	The user/individual on the job needs to know and understand how to: SB12. Follow instructions and work on areas of improvement identified SB13. Complete the assigned tasks with minimum supervision SB14. Complete the job defined by the supervisor within timelines and quality norms.

NOS Version Control

NOS Code	**RSC/N4102 (CPC/N0412)**		
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Sector	**Rubber**	**Drafted on**	**18/05/2016**
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Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**

RSC/N4103 (CPC/N0413) Introduction to Polymers and Thermoplastics Materials

National Occupational Standards

Overview

This unit covers the Basic Knowledge of polymers and Understanding the difference between plastics & other materials. Thermoplastics materials and their properties and end use application. Basic Knowledge of Polymer Identification Methods.

National Occupational Standards

Unit Code	**RSC/N4103 (CPC/N0413)**
Unit Title (Task)	**Introduction to Polymers and Thermoplastics Materials**
Description	This unit is about Introduction to Polymers Thermoplastics Materials 1. Types of Polymers. 2 Difference between plastics & other materials. 3. Become familiar with thermoplastics materials. 4. Recognize the potential value of polymeric materials and their areas of Application.
Scope	The Blow moulding person will be learning about. Types of Polymers, Types of Plastics & its Properties. Processing behavior and applications Use of Polymers and their applications in industries like Bottles, Hollow container, automotive fuel aerospace, etc.
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Introduction To Polymers	**To be competent, the user/individual on the job must be able to** Introduction:- PC1. Learn the basic Importance of polymers in Human Life. PC2. Learn the fundamental terminology of polymers PC3. Study the types of polymers & its application.
Study of Plastics Material	PC4. Study abou types of Polymers-Thermoplastics, Elastomers. PC5. Learn the plastic Material Applications- Commodity sector, telecommunications, automobiles, packaging medical, Electrical and Electronics & aerospace etc.
Thermoplastic Materials	PC6. Study the Commodity Polymers: Polyolefin: LDPE – HDPE – LLDPE, PP etc. PC7. Study the Engineering Polymers: PC, ABS, PMMA, POM, PA-NYLON etc. PC8. Study the Special Polymers: FEP, PVDF etc.
Identification of Plastics Material	PC9. Learn the Identification Method:-Drop Test, water floatation Test, Scratch test. PC10. Learn the advanced methods of Identification:-MFI, Melting etc.
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	**The user/individual on the job needs to know and understand:** KA1. Relevant standards specified to identify the polymers KA2. Basic process to be followed for inspection of the lot. KA3. Batch size, material grade and nomenclature.
B. Technical Knowledge	**The user/individual on the job needs to know and understand:** KB1. About identification of polymers.

	KB2. About the instruments burner, copper rods, solvents, weighing scales and other instruments and machineries to identify the polymers and its properties. KB3. Knowledge to identify quality defects. KB4. Working knowledge and procedure of testing and identifying machines.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Read the values and process of polymer with specification. SA2. Knowledge about different type of format relevant to the polymer identification.
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. Read values and equipment manuals to understand the working of the equipment SA4. Understand measuring instruments reading to identify any deviations from the dimensions given in the standards.
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. Inform supervisor/operator of any quality related defects arising out of the manufacturing process SA6. Question internal customers/ supervisor appropriately in order to understand the nature of the problem and make a Diagnosis
B. Professional Skills	**Plan and Organize**
	The user/individual on the job needs to know and understand how to: SB1. Use common sense and make judgments during day to day basis use reasoning skills to identify and resolve basic problems SB2. Understand & Carefully analyze the body part for various assembling defects at every station. SB3. Carefully analyze each defect observed during inspection and try to find solution for the defect along with the assembly line operator.
	Quality Consciousness
	The user/individual on the job needs to know and understand how to: SB4. Identify defective materials in the manufacturing line by comparing manufactured hollow articles(container; bottles) with the work standard SB5. Link the defect observed with the overall impact on the performance of the output.

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NOS Code	**RSC/N4103 (CPC/N0413)**		
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Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**

RSC/N4804 (CPC/N1114) Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure

National Occupational Standards

Overview

This unit is Basic Knowledge of plastics processing methods with respect to plastics sack. Formulations to make plastic sack /tape with help of process parameters.

RSC/N4804 (CPC/N1114) Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure

National Occupational Standards

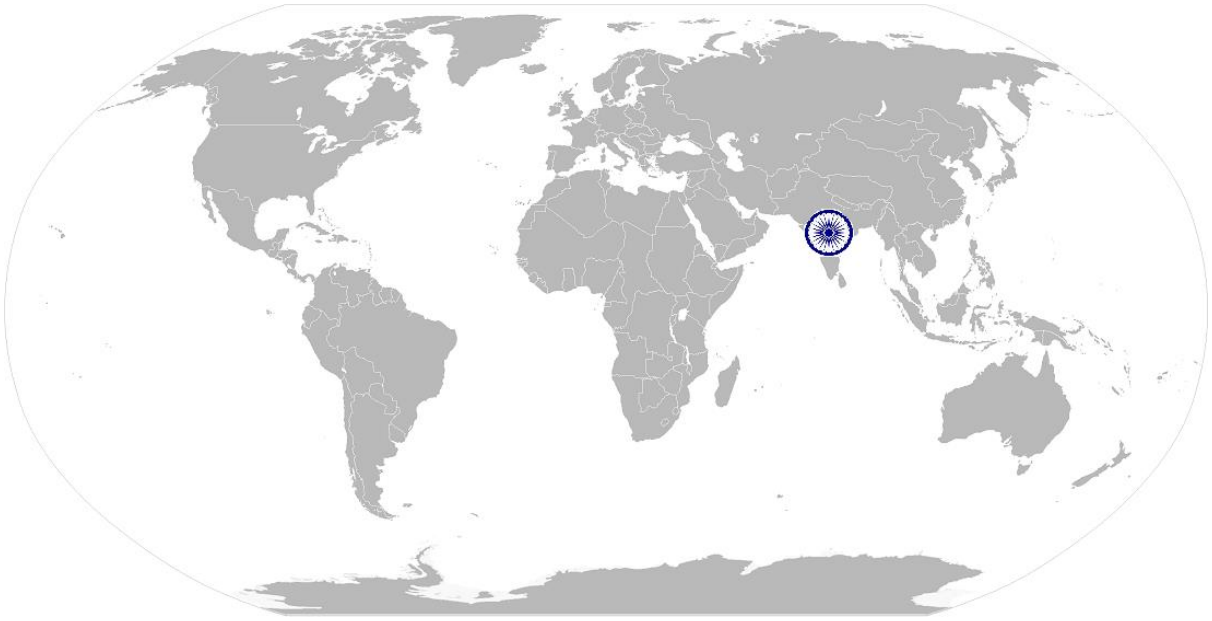
Unit Code	**RSC/N4804 (CPC/N1114)**
Unit Title (Task)	**Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure**
Description	This unit is about Basics Study of Plastics Processing methods 1. Basic Knowledge of methods used to process sack. Each method has its Advantages and disadvantages and are better suited for specific applications. 2. Basic Knowledge of Manufacture of plastics sack/Tape.
Scope	1. Assisting to operator in setting up and operating the plastics Sack machine. 2. Assist to operator in checking the operations of the equipment 3. Basic understanding of fundamental of sack/tape process. 4. Setting Parameters & Trouble Shooting in Sack Process.
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Introduction to Sack/ Tape Process	**To be competent, the user/individual on the job must be able to:** PC1 Ensure the basic needs for plastics sack/tape process principle. PC2 Identify the merits and demerits of sack/tape process to over the all others plastic Process. PC3 Ensure the finishing operation including surface treatment of the fabricated product if required as per SOP,
Classification of different extrusion process plant	PC4 Ensure that tape extrusion line and its terminology-as quenching, heating and orientation by stretching annealing, winding etc. PC5 Ensure that Film extrusions: - Types & specification requires, Blown film, Flat film, cast film. PC6 Special film extrusion: - Tubular quench film (TQ), expanded film, and Co extruded film & sheet etc. PC7 Learn the Pipe / tube extrusion process: - Introduction, development different features. Construction & operation Pipe extrusion line according to various material & sizes. PC8 Learnig about the Sizing method, take off method & post operation method.
Processing methods	PC9 Learn the type of process to be used depends on a variety of factors PC10 Ensure the Parameters, including product shape and size, plastic type, quantity to be produced, PC11 Ensure the Common Process Parameter like Temperature, Pressure and Speed and its controls. PC12 Ensure that Post production and storing. PC13 Learn the Machine Operation and process parameter of sack/tape. PC14 Learn the Shut down procedure- extruder, tape line/ circular looms and weaving machines etc. PC15 Learning about conversion techniques: Lamination sealing cutting, printing and other processes.

RSC/N4804 (CPC/N1114) Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure

Feed the cleaned, dried and separated plastic waste in the hopper and conduct a trial with the setting of the parameter	PC16 Learning about preheating and pre operations of plastic if required PC17 Ensure the basic knowledge of plastic material are mixed with additives, fillers (if any) before being fed into the hopper PC18 Ensure the required operation code in the apparatus for heaters to melt the plastic material at the predefined temperature PC19 Enter process temperature, volume of plastic material and weight settings in the machine as per data sheet PC20 Enter machine and process parameters such as pressure and time as per the data sheet. PC21 Learn about troubleshooting i.e. Defects, Causes & Remedies.
Knowledge and Understanding (K)	
Organizational Context (Knowledge of the company / organization and its processes)	**The user/individual on the job needs to know and understand:** KA1. The relevant standards specified for the Processing KA2. The basic process followed through manual. KA3. Organizational Coding system of raw material, compounds and products KA4. The importance of identifying non-conforming materials. KA5. Risk and impact of not following defined procedures/work instructions. KA6. The types of documentation in organization and importance of the same.
B. Technical Knowledge	**The user/individual on the job needs to know and understand:** KB1. The processes and procedures followed for Processing the lot/ pieces/ products. KB2. The techniques of using measurement instruments like rulers, Vernier calipers, micrometers, weighing scales etc. KB3. The methods to identify quality defects in the Processing. KB4. The impact of defects on the overall working of the product. KB5. The methods used for cutting, finishing which can repair lot with minor defects KB6. Various quality standards in India (ISO) used by the organization
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Note the number of lot with defects which can be repaired to number of lot which will be discarded
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. Read process and equipment manuals to understand the working of the equipment SA3. Read measuring instruments reading to identify any deviations from the dimensions given in the product engineering drawing

RSC/N4804 (CPC/N1114) Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure

	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. Inform supervisor of any quality related defects arising out of the manufacturing process SA5. Question internal customers/ supervisor appropriately in order to understand the nature of the problem and make a diagnosis



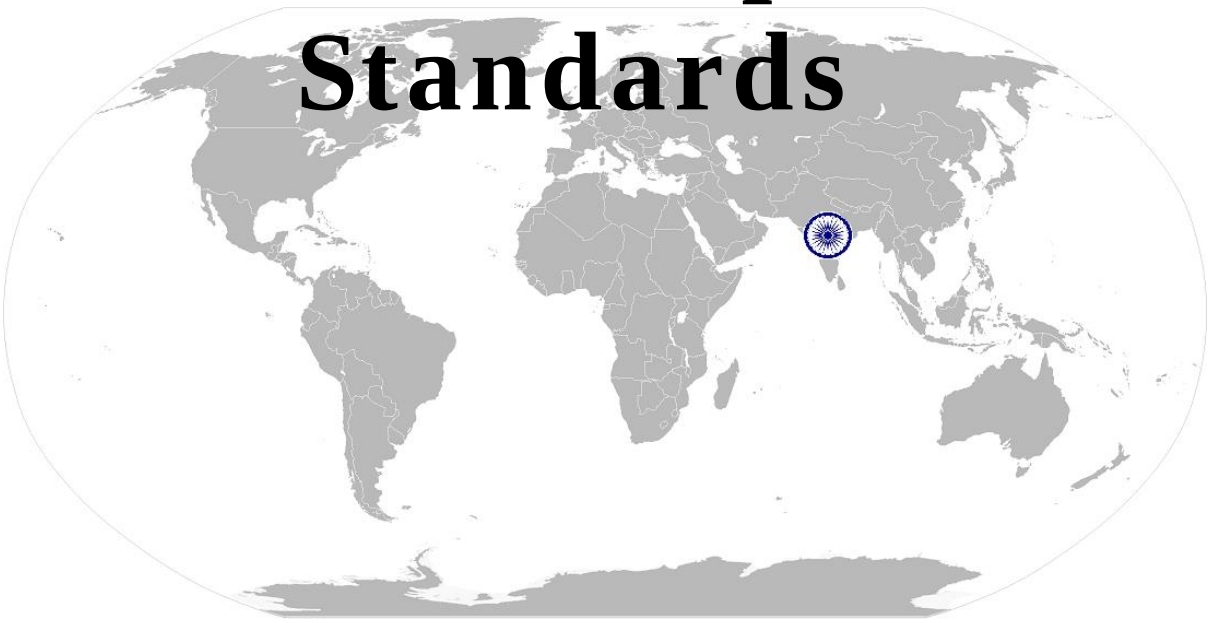
RSC/N4804 (CPC/N1114) Basic Knowledge of woven sack/raffia plant operations with start up and shut down procedure

NOS Version Control

NOS Code	**RSC/N4804 (CPC/N1114)**		
Credits (NSQF)	**7**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
Sub Sector	**Manufacturing / Plastics Processing**	**Last reviewed on**	**26/12/2016**
Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**

RSC/N4805 (CPC/N1115) Basic Knowledge of Weaving technology and Loom operation (Circular)

National Occupational Standards



Overview

In this unit represent the Basic Knowledge of weaving and loom operators assistant and related segments including Sack and tape manufacturing developing a cohesive and integrated framework of training based on the industry needs. To increase the employability of residents of the target areas through imparting of skills in the Sack and tape manufacturing, and related segments.

RSC/N4805 (CPC/N1115) Basic Knowledge of Weaving technology and Loom operation (Circular)

National Occupational Standards

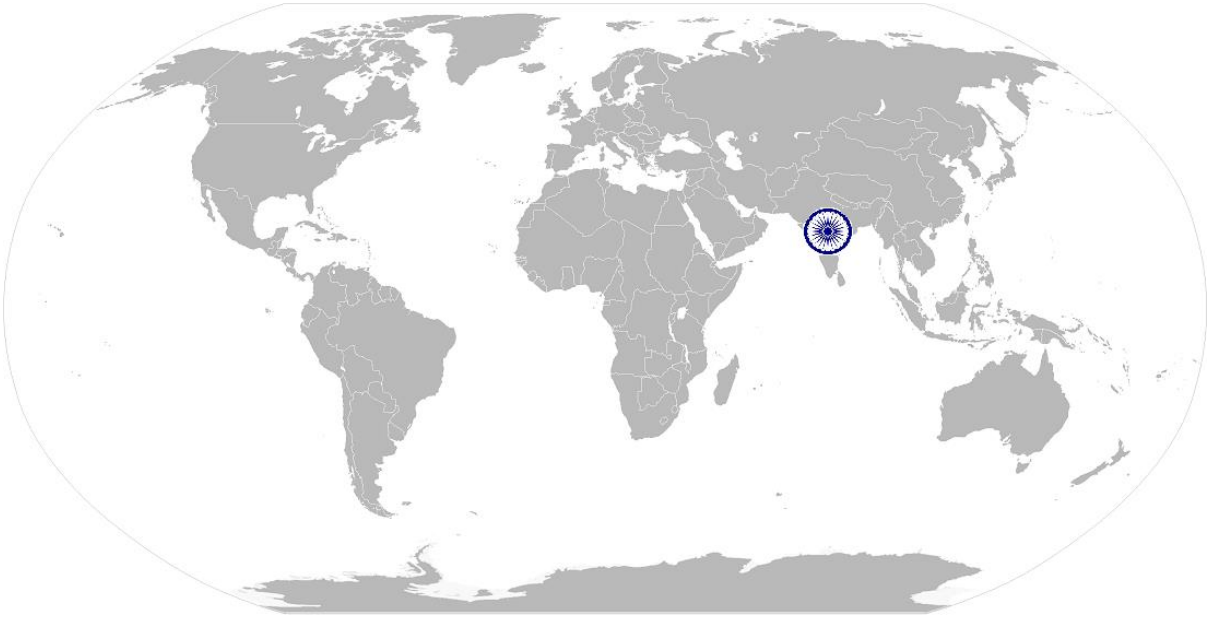
Unit Code	**RSC/N4805 (CPC/N1115)**
Unit Title (Task)	**Basic Knowledge of Weaving technology and Loom operation (Circular)**
Description	Basic Knowledge of Weaving technology and Loom operation (Circular). The operator will gain a Basic knowledge and understanding of Weaving technology and Loom operation- 1. Weaving and loom process and its basic principles. 2. Types of weaving and loom process. 3. Continuous and intermittent weaving and loom machines. 4. Set up, operate, or tend machines that knit, loop, weave, or draw in sack process.
Scope	The blow molding operator assistant will be responsible for • Weaver's knotting • Feeding / Replacing looms • Attending to Weft Break • Loom operation • Assisting to Operator during other Work Practices on weaving and loom machine • Assisting in checking the operations of the equipment
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Principles and basics Of Weaving technology and Loom operation	**To be competent, the user/individual on the job able to:** PC1 Learning about Principle of Weaving technology and Loom operation. PC2 Ensure the basic need of Tools and Accessories and Machineries. PC3 Identify the raw Materials for Loom , weaving machines operation
Typologies of Weaving technology and Loom operation	PC4 Study the various types of Loom, weaving machines operation process. PC5 Study the types of Loom: - shuttle, projectile loom, rapier loom water jet loom, air jet loom and circular looms etc. PC6 Study the Type of weaving – single phase and multiphase
Loom , weaving machines operation	PC7 Learn the basic Setting of Loom & weaving Machine operation merits and demerits/over other Process PC8 Check the identified feed strip for dimension uniformity/identified tape PC9 To make tiny & firm weaver's knots PC10 Find out broken warp ends, find out the location of the broken end, by bringing the hands under the dropper bars, with mechanical droppers. detect the location using the indication lamp & by bringing the hands over the droppers, with electrical warp stop motion PC11 Find the broken warp end in the sized beams with the thrums of the same count of the sized beams, using " weavers ' knots" PC12 Learn how to run the loom by pulling the starting handle with full torque. PC13 Clean the machines & work area, so as to ensure good working atmosphere, without damaging the tape in the looms where the cleaning work is carried out

	as well as in the adjacent & opposite looms . Should not misuse "air". Can use air for cleaning, only in the areas.
Check the operations of the equipment used in Loom , weaving machines process	PC14 Check the operation of weaving and loom apparatus as per the checklist provided PC15 Ensure how to fix the desired loom to the weaving and loom machine apparatus in order to achieve the desired operation as per the Work Instructions/ SOPs
Perform the visual inspection of the output and finishing operation	PC16 Ensure the basic functionality and assembly of weaving and loom machine as per SOP. PC17 Adjust the weaving and loom machine controlling and program with the help of tools and software as per requirement. PC18 Adhere molding procedure and process to be adopted for completing the work order from the supervisor by referring the Work Instruction document/ SOP manual PC19 Ensure that the required material is procured from the store before starting the process PC20 Identify the type of looms and weaving required for executing the required operation and ensure that the same is available for operations PC21 Ensure that the pouring in line with defined standards and specifications PC22 Ensure the record of feeding observations like interrupted pouring or any abnormality PC23 Conduct a test process and produce a sample output as per the sketches/ engineering drawing shared with the supervisor. PC24 Ensure that the dimensions of the output product are measured as per the process given in the Work Instructions/ SOP PC25 In case the parts are not as per the given measurements, send the same for further processing in terms of cutting, finishing etc. PC26 Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards PC27 Discard the batch which are beyond repair and repair the ones which need minor modifications in settings. PC28 Maintain the records of each category of work outputs as per the batch etc. so that correction can be organized. PC29 Ensure the establish linkage between rejection of output and the pertinent causes for the same (process/ material etc.); Recommend the means for rejection control. PC30 Rectify the minor defects like dimension variation, thickness variation etc. by control process parameters etc. PC31 Identify that all issues related to change in surface properties, Tensile strength etc. so that the manufacturing equipment can be reset to achieve the specified output. PC32 Provide the first and last output from each batch to the lab for quality check on its composition, properties etc.

	PC33 Obtain clearance for the entire batch from the lab
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	**The individual on the job needs to know and understand:** KA1. Organization's policies & standard operating procedures (SOP) and its process KA2. About the awareness, knowledge of customers KA3. The potential hazards associated with the machines and the safety precautions must be taken KA4. The protocol to obtain more information on work related tasks KA5. The contact person in case of queries on procedure or products and for revolving issues related to defective machines, tools, materials & equipment's KA6. The details of the various job rolls & responsibilities KA7. The documentation and reporting formats KA8. The work targets & review machine with superiors KA9. The protocol and format for reporting work related risks/ problems KA10. The method of obtaining /giving feedback with respect to performance KA11. The importance of team work and harmonious working relationships KA12. The process for offering /obtaining work related assistance KA13. The responsibilities under health, safety and environmental legislation KA14. The guidelines for storage & disposal of waste materials
B. Technical Knowledge	**The user/individual on the job needs to know and understand:** KB1. The minimum quality requirements of the product with respect to permissible/non-permissible defects KV2. The fabric quality particulars such as ends & picks per inch, width, products weave etc.kb5. Operation of moulding machine (equipment working, possible setting levels, typical process followed for different batches)
About the Raw materials	KB4. To have basic knowledge of yarns from natural fibers - cotton, silk, wool KB5. To have basic knowledge of yarns from manmade fibers - polyester, nylon, viscose KB6. To have basic knowledge of blended yarns - Polyester Cotton, Polyester Viscose
About different types of Looms	KB6. Hand loom KB7. Power loom - conventional loom KB8. Auto loom - shuttle looms KB9. Shuttle less looms - rapier , projectile , air jet, water jet KB10. Tappet loom/ cam loom/ crank loom , dobby loom, jacquard loom
About types of weave	KB11. Plain weave, twill , drill, plain satin, stripe satin , dobby designs , jacquard designs
Causes for fabric defects: due to weaver,	KB12. Wrong drawing , wrong denting, end out , double end, broken pick, double pick, missing pick, hand stain , hole, wrong weft, bad selvedge,

due to loom, due to other reasons	KB13. End out, let-off, take- up problem, temple mark, temple cut, emery hole/ emery cut/ emery mark, broken pick, missing pick, double pick, short pick, snarls, impression mark, oil stain, lashing in, weft catching, selvedge cut, loops, weft stitches, warp stitches, bumping mark, weft crack, cloth torn , bad shedding, warp floats, Weft Floats, Reed Mark, Bad Selvedge, Starting KB14. Weaving faults - thin place, thick place, neps, kitties, contamination, color flies, yarn variation, shade variation KB15. Sizing faults - shade variation, size patches, sizing oil, bead formation, KB16. Weaving faults - wrong weft, wrong pattern, less width, low epic, low ppi, wrong warp.
Safety Mechanism	KB29. To know the safety mechanisms of the machines & should ensure that the same are in order KB30. Should know about the stop motions & should ensure that the same are in order KB31. should know about the indication lamps & should ensure that the same are in order
Machine Operators	KB32. To know about the functional operations of the machines, where he/she is working
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Note the number of lot with defects which can be repaired to number of lot which will be discarded
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. Read process and equipment manuals to understand the working of the equipment SA3. Read measuring instruments reading to identify any deviations from the dimensions given in the product engineering drawing
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. Inform supervisor of any quality related defects arising out of the manufacturing process SA5. Question internal customers/ supervisor appropriately in order to understand the nature of the problem and make a diagnosis
B. Professional Skills	**Plan and Organize**
	The user/individual on the job needs to know and understand how to: SB1. Plan & organize the work order & jobs received from the supervisor SB2. Organize all process/ equipment manuals so that sorting/ accessing information is easy SB3. Keep fixtures, tools, drawings, Work Instructions, SOP manuals as per the part

	number, colour codes etc. as defined under the 5S systems
	Critical Thinking and Judgment
	The user/individual on the job needs to know and understand how to: SB4. Use common sense and make judgments during day to day basis use reasoning skills to identify and resolve basic problems SB5. Carefully analyze the body part for various assembling defects at every station SB6. Carefully analyze each defect observed during inspection and try to find solution for the defect along with the assembly line operator



RSC/N4805 (CPC/N1115) Basic Knowledge of Weaving technology and Loom operation (Circular)

NOS Version Control

NOS Code	**RSC/N4805 (CPC/N1115)**		
Credits (NSQF)	**7**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
Sub Sector	**Manufacturing / Plastics Processing**	**Last reviewed on**	**26/12/2016**
Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**

National Occupational Standard

Overview

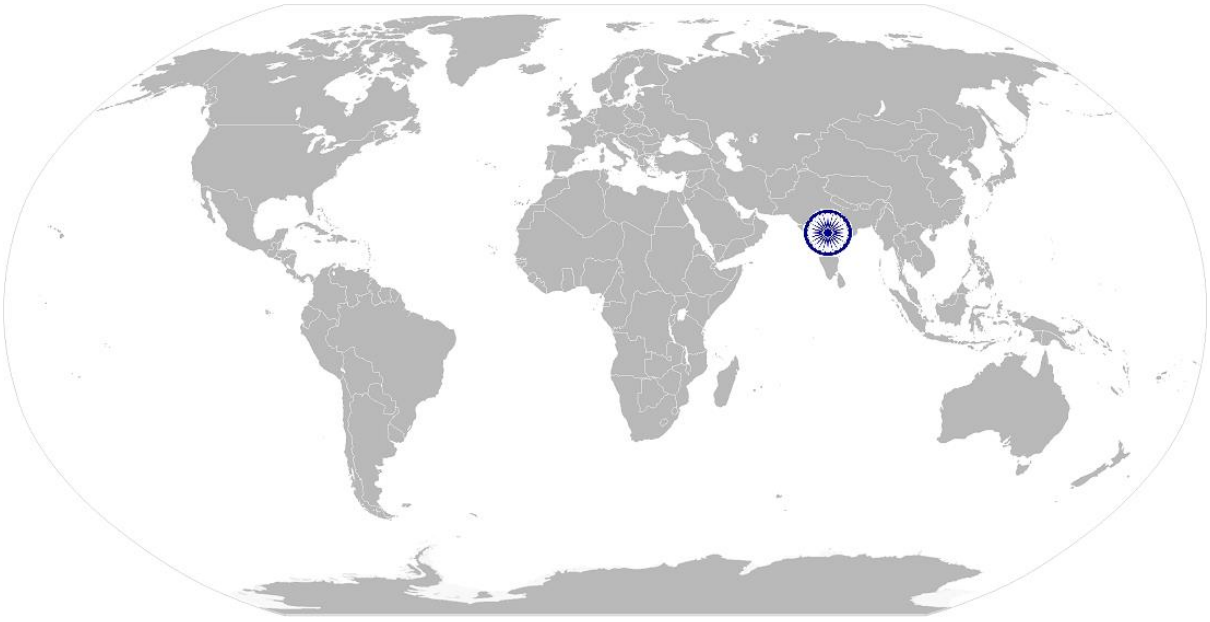
This unit is Understand Basic Types of Auxiliary equipment's used in Plastics processing consists of several components, such as material management, reclamation, heat transfer. Auxiliary equipment provides the source for every possible processing advantages in terms of productivity and quality output.

Unit Code	**RSC/N4806 (CPC/N1116)**
Unit Title (Task)	**Auxiliary equipment's used in Plastics Sack and Tape Production.**
Description	This OS unit is about Control and maintains auxiliary equipment, such as chillers pumps, fans, compressors, condensers, feed water heaters, filters, and chlorinators that supply water, fuel, lubricants, air, and auxiliary power for chillers.
Scope	The role holder will be responsible for • Opens and closes valves and switches in sequence upon signal from other worker to start or shut down auxiliary units.
Performance Criteria (PC) w.r.t. scope	
Element	**Performance Criteria**
Basic requirement of Auxiliary Equipments and machineries	**To be competent, the user/individual on the job must be able to** PC1. Inspect, monitor, operating fuel systems, fuel oil transfer, supply lines & associated equipment and fossil fuel chillers. PC2. Operate condensate and feed water systems, circulating and cooling water systems, condensate and makeup systems, circulating service water treatment equipment, auxiliary lube oil systems, emission control equipment and miscellaneous equipment. Pass onsite training programs. Follow the safety rules, regulations and procedures. PC3. Connects basic plant services as needed to meet production requirements and makes initial checks of operating conditions before initiating production runs. PC4. Assist in cleaning and lubrication of equipment and tooling and performs various preventative maintenance tasks as needed.
Different type of Auxiliary Equipment	PC5. Study adout different types of Predrier-Hot air Oven, Hopper Driers, Dehumidifiers etc. PC6. Study the basics of Chiller, Cooling Tower for the controlling temperature of Mould, machine and Fluids. PC7. Ensure the basic Operation and Monitoring -- Watching gauges, dials, or other indicators to make sure a machine is working properly. PC8. Study about the Compressor and Scrap Grinder.
Study process of operation and maintenance of auxiliary equipment	PC9. Ensure the equipment maintenance -- Performing routine maintenance on equipment and determining when and what kind of maintenance is needed. PC10. Ensure the Equipment Selection -- Determining the kind of tools and equipment needed to do a job. PC11. Follow the instructions given on the equipment manual describing the operating process of the equipment PC12. Follow the Safety, Health and Environment related practices developed by the organization PC13. Ensure relevant safety board's/ signs are placed on the shop floor PC14. Operate the machine using the recommended Personal Protective Equipment (PPE) and ensure team members also use the related PPEs at the workplace PC15. Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc.

	PC16. Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques PC17. Maintain high standards of personal hygiene at the work place PC18. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.
Knowledge and Understanding (K)w.r.t. the scope	
A. Organizational Context (Knowledge of the company / organization and its processes)	**The user/individual on the job needs to know and understand:** KA1. Relevant standards, procedures and policies related to auxiliaries machineries followed in the company KA2. Emergency handling procedures & hierarchy for escalation
B. Technical Knowledge	**The user/individual on the job needs to know and understand:** KB1. The start up procedure as per SOP KB2. To have basic knowledge of Safety procedures(firefighting, first aid) within the organization KB3. Basic knowledge of various types of PPEs and their usage KB4. Basic knowledge of risks/hazards associated with each occupation in the organization KB5. Knowledge of personal hygiene and how an individual an contribute towards creating a highly safe and clean working environment KB6. Basic knowledge of various operations of machineries and equipment as per the operation manual. KB7. The shut down procedure as per SOP
Skills (S)w.r.t. the scope	
Element	**Skills**
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. Read safety instructions put up across the plant premises SA3. Read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. Effectively communicate information to team members SA5. Inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment. SA6. To question the operator/ supervisor in order to understand the safety related issues SA7. Attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
B. Professional Skills	**Judgmental Thinking**

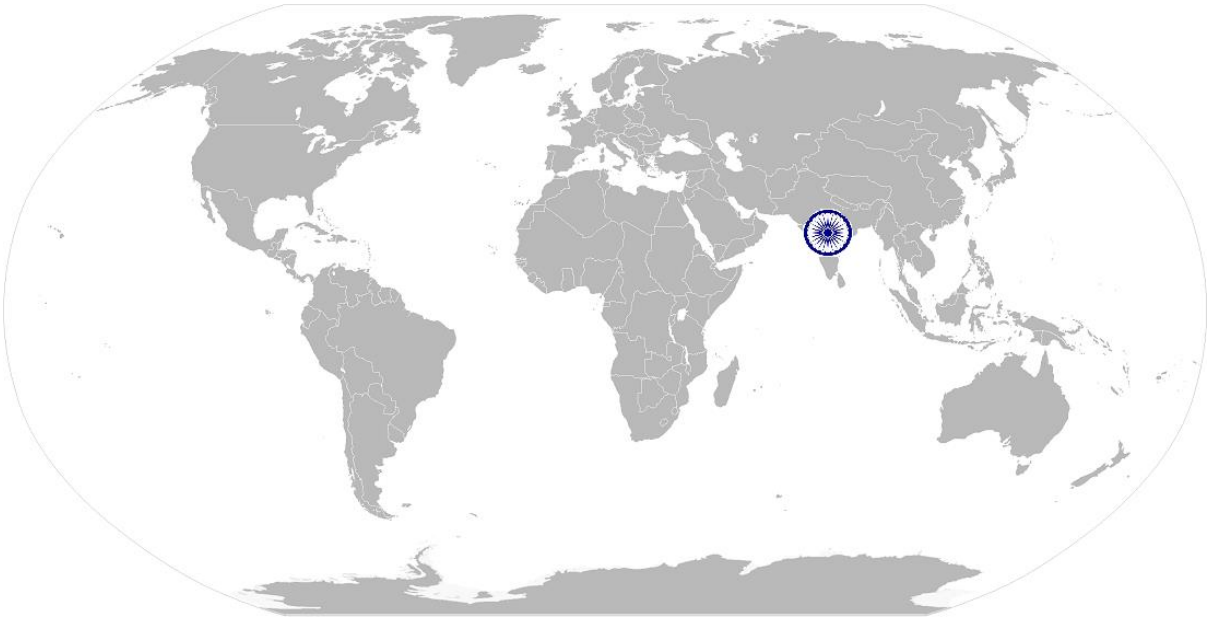
RSC/N4806 (CPC/N1116) Auxiliary equipments used in Plastics Sack and Tape Production

	The user/individual on the job needs to know and understand how to: SB1. Use common sense and make judgments during day to day basis SB2. Use reasoning skills to identify and resolve basic problems



NOS Version Control

NOS Code	**RSC/N4806 (CPC/N1116)**		
Credits (NSQF)	**2**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
Sub Sector	**Manufacturing / Plastics Processing**	**Last reviewed on**	**26/12/2016**
Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**



National Occupational Standards

Overview

This unit is about the understanding of soft skills include situational awareness and the ability to read a situation as it unfolds to decide upon a response that yields the best result for all involved.

RSC/N4108 (CPC/N0418) Basic Knowledge of Communication/soft skills

National Occupational Standards

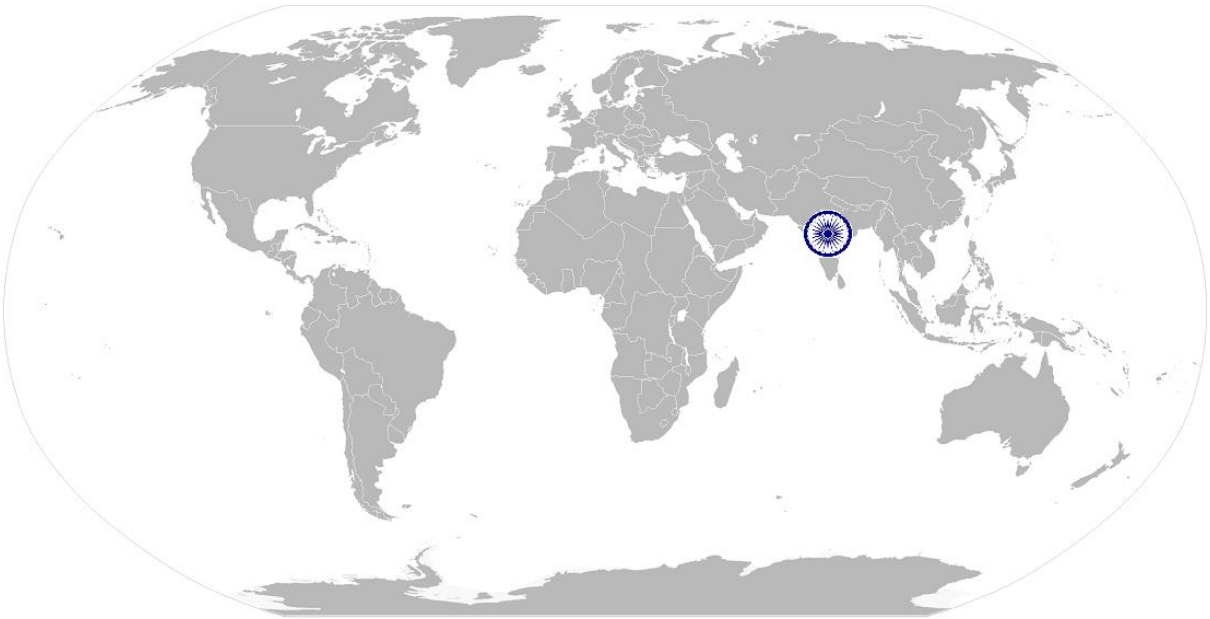
Unit Code	RSC/N4108 (CPC/N0418)
Unit Title (Task)	Basic Knowledge of Communication/soft skills
Description	This OS is about ensuring a Person with this attribute has the ability to work in various situations equally well and move from one situation to another with ease and grace. The ability to be diplomatic and respectful even when there are disagreements is also a key soft skill. This skill requires the employee to maintain a professional tone and demeanor even when frustrated.
Scope	The individual needs to understand the following: • Basic Knowledge on functions of computer & its operations. • Effective communication & Inter-personal skills
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Basic Knowledge on functions of computer & its operations.	**The individual on the job should be able to:** PC1. Perform basic computer operartions. PC2. Learn about basic functions in a Computer
Effective communication & Inter-personal skills	PC3. Accurately receive information and instructions from the supervisor/operator and fellow workers, getting clarification where required PC4. Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt PC5. Display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible PC6. Consult and assist others to maximize the effectiveness and efficiency in carrying out tasks PC7. Display active listening skills while interacting with others at work PC8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism PC9. Behave as a responsible person at the workplace PC10. Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict
Knowledge and Understanding (K) w.r.t. the scope	
Element	**Knowledge and Understanding**
A. Organizational Context (Knowledge of the company / organization and	**The individual on the job needs to know and understand:** KA1. Standards, policies, and procedures followed in the company relevant to own employment and performance conditions KA2. Reporting structure, inter-dependent functions, lines and procedures in the work area

its processes)	KA3. Relevant people and their responsibilities within the work area
Elements and Principles of Communication	KA4. Basic Study of Elements of Soft communication skills: •Principle of Communication Process •Clarity •Conciseness •Objectivity •Consistency •Completeness •Relevancy •Audience Knowledge •Receiver •Barriers
How does a computer work?	KA5. Computer functions in the following manner: •Turning the Computer On and Logging On •The computer accepts input •Performs useful operations •Stores data •Produces output
B. Technical Knowledge	**The individual on the job needs to know and understand:** KB1. Various categories of people that one is required to communicate and co-ordinate with in the organization KB2. The importance of effective communication in the workplace KB3. Key elements of active listening KB4. The value and importance of active listening and assertive communication KB5. The importance of tone and pitch in effective communication KB6. The importance of ethics for professional success KB7. The importance of discipline for professional success. KB8. The Importance of developing effective working relationships for professional success. KB9. Expressing and addressing grievances appropriately and effectively KB10. The importance and ways of managing interpersonal conflict effectively

RSC/N4108 (CPC/N0418) Basic Knowledge of Communication/soft skills

NOS Version Control

NOS Code	**RSC/N4108 (CPC/N0418)**		
Credits (NSQF)	**2**	**Version number**	**1.0**
Sector	**Rubber**	**Drafted on**	**18/05/2016**
Sub Sector	**Manufacturing / Plastics Processing**	**Last reviewed on**	**26/12/2016**
Occupation	**Plastics Sacks**	**Next review date**	**31/12/2021**



CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Machine Operator Assistant – Plastics Sacks
Qualification Pack Code: RSC/Q 4802 (CPC/Q 1103)
Sector Skill Council: Rubber Skill Development Council

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also laydown proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criteria.
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

Assessable outcome				Marks Allocation	
NOS	**Performance Criteria**		**Total**	**Theory**	**Practical**
1. RSC/N4101 (CPC/N0411): Maintain basic health and safety practices at the workplace, 5S.	PC1	Wear protective clothing/equipment for specific tasks and work conditions	1.5	0.5	1
	PC2	Carry out safe working practices while dealing with hazards to ensure the safety of self and others.	1.5	0.5	1
	PC3	Apply good housekeeping practices at all times	1.5	0.5	1
	PC4	use the various appropriate fire extinguishers on different types of fires correctly	1.5	0.5	1
	PC5	Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.	2.5	0.5	2
	PC6	Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous/unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine.	2.5	0.5	2
	PC7	Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc., Inform the concerned authorities about machine breakdowns, damages	2.5	0.5	2

		which can potentially harm man/ machine during operations.			
	PC8	Create awareness amongst other by sharing information on the identified risks.	2.5	0.5	2
	PC9	Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un- necessary items are not cluttering the workbenches or work surfaces.	2.5	0.5	2
	PC10	Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions	2.5	0.5	2
	PC11	Follow the technique of waste disposal and waste storage in the proper bins as per SOP	2.5	0.5	2
	PC12	Segregate the items which are labelled as red tag items for the process area and keep them in the correct places	2.5	0.5	2
	PC13	Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions	2.5	0.5	2
	PC14 PC15	Ensure that areas of material storage areas are not overflowing. Properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required	2.5	0.5	2
	PC16	Return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area	1.5	0.5	1
	PC17	Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards.	1.5	0.5	1
	PC18	Follow the proper labelling mechanism of instruments/ boxes/containers and maintaining reference files/ documents with the codes and the lists	1.5	0.5	1
	PC19	Check that the items in the respective areas have been identified as broken or damaged	1.5	0.5	1
	PC20	Follow the given instructions and check for labelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same To avoid spillage, leakage, fire etc.	1.5	0.5	1
	PC21	Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions	1.5	0.5	1
		Sub total	**40**	**10**	**30**

Qualifications Pack For Machine operator Assistant - Plastics Sacks

2. RSC/N4102 (CPC/N0412): Fitting Tools Measuring Equipment's & Practice	PC1 Comply with health and safety, environmental and other relevant regulations	1.5	0.5	1
	PC2 Adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing die fitting operations	1.5	0.5	1
	PC3 Work following laid down procedures and instructions	1.5	0.5	1
	PC4 Ensure work area is clean and safe from hazards	2.5	0.5	2
	PC5 ensure that all tools, equipment, power tool cables, extension leads are in a safe and usable condition	2.5	0.5	2
	PC6 Basic Knowledge of job specification from a valid and approved source	2.5	0.5	2
	PC7 Understand job requirements from the job specification document properly	2.5	0.5	2
	PC8 Report to operator information time to time.	2.5	0.5	2
	PC9 Basic Knowledge of the fitting operations as per procedure	3	1	2
	PC10 Ensure that all calibrated measuring instruments used.	3	1	2
	PC11 ensure that the components used are free from foreign objects, dirt and corrosion	3	1	2
	PC12 Obtain appropriate tools and measuring instruments.	2.5	0.5	2
	PC13 Understand of work pieces as per job requirements using appropriate holding devices	2.5	0.5	2
	PC14 Helping to operator while marking specified features with the help of marking-out methods on the work pieces as per job specification by using appropriate measuring and marking tools.	2.5	0.5	2
	PC15 Basic knowledge of different fitting operations on various forms of metal components using a range of hand tools and manually operated machines	2.5	0.5	2
	PC16 Basic knowledge of Carrying & return all tools and equipment to the correct location on completion of the fitting activities	2.5	0.5	2
	PC17 Cleaning the work area in a safe and tidy condition on completion of job activities	1.5	0.5	1
	Sub total	**40**	**10**	**30**
3. RSC/N4103 (CPC/N0413):	PC1 Basic Importance of polymers in Human Life.	3	1	2

Qualifications Pack For Machine operator Assistant - Plastics Sacks

Introduction to Polymers and thermoplastics Materials	PC2	Understand fundamental terminology of polymers	3	1	2
	PC3	Types of polymers & its application.	5	1	4
	PC4	Basic Knowledge of Polymers- Types of Polymers- Thermoplastics, Elastomers	5	1	4
	PC5	Plastic Material Application-commodity sector, telecommunications, automobiles, packaging medical, Electrical and Electronics & aerospace etc.	5	1	4
	PC6	Commodity Polymers: Polyolefin: LDPE – HDPE – LLDPE, PP etc.	5	1	4
	PC7	Engineering Polymers: PC, ABS, PMMA, POM, PA-NYLON etc.	5	1	4
	PC8	Special Polymers: FEP, PVDF etc.	3	1	2
	PC9	Basic Knowledge of Identification Method:-Drop Test, water floatation Test, Scratch test.	3	1	2
	PC10	Basic Knowledge of Advanced Methods of Identification:-MFI, Melting etc.	3	1	2
		Sub total	**40**	**10**	**30**
4. RSC/N4804 (CPC/N1114): Basic Knowledge of woven sack/raffia plant operations with start-up and shut down procedure	PC1	Understand Basic needs for plastics sack/tape process principle.	3	1	2
	PC2	Basic Knowledge of merits and demerits of sack/tape process to over the all others plastic Process.	4	1	3
	PC3	Basic Knowledge of finishing operation including surface treatment of the fabricated product if required as per SOP,	5	1	4
	PC4	Basic understanding of tape extrusion line and its terminology-as quenching, heating and orientation by stretching annealing, winding etc.	5	1	4
	PC5	Basic understanding of Film extrusion: - Types & specification requires. Blown film, Flat film, cast film.	3	1	2
	PC6	Basic understanding of Special film extrusion: - Tubular quench film (TQ), expanded film, Co extruded film & sheet etc.	3	1	2
	PC7	Basic understanding of Pipe / tube extrusion process: - Introduction, development different features. Construction & operation Pipe extrusion line according to various material & sizes.	6	2	4
	PC8	Basic Knowledge of Sizing method, take off method & post operation method.	6	2	4
	PC9	Understand the type of process to be used depends on a variety of factors	6	2	4

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	PC10 Understand the Parameters, including product shape and size, plastic type, quantity to be produced,	6	2	4
	PC11 Basic Knowledge of Common Process Parameter like Temperature, Pressure and Speed and its controls.	5	1	4
	PC12 Basic Knowledge of Post production and storing.	5	1	4
	PC13 Basic Knowledge of Machine Operation and process parameter of sack/tape.	5	1	4
	PC14 Basic Knowledge of Shut down procedure- extruder, tape line/ circular looms and weaving machines etc.	5	1	4
	PC15 Basic Knowledge of Type of Conversion Techniques: Lamination sealing cutting, printing and other processes.	5	1	4
	PC16 Basic Knowledge of preheating and pre operations of plastic if required	5	1	4
	PC17 Basic Knowledge of plastic material are mixed with additives, fillers (if any) before being fed into the hopper	5	1	4
	PC18 Feed the required operation code in the apparatus for heaters to melt the plastic material at the predefined temperature	5	1	4
	PC19 Enter process temperature, volume of plastic material and weight settings in the machine as per data sheet	5	1	4
	PC20 Basic Knowledge of Enter machine and process parameters such as pressure and time as per the data sheet	5	1	4
	PC21 Troubleshooting i.e. Defects, Causes & Remedies.	3	1	2
	Sub total	**100**	**25**	**75**
5.RSC/N4805 (CPC/N1115): Basic Knowledge of Weaving technology and Loom operation (Circular)	PC1 Understand basic Need of Tools and Accessories and Machineries.	1.5	0.5	1
	PC2 Understanding of raw Material for Loom , weaving machines operation	1.5	0.5	1
	PC3 Basic Knowledge of Various types of Loom, weaving machines operation process.	1.5	0.5	1
	PC4 Basic Knowledge of Various types of Loom:- shuttle , projectile loom, rapier loom water jet loom, air jet loom and circular looms etc.	1.5	0.5	1
	PC5 Basic Knowledge of Type of weaving – single phase and multiphase PC6 Basic Knowledge of Type of weaving – single phase and multiphase	2.5	0.5	2

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	PC7	Understand basic Setting of Loom , weaving Machine operation merits and demerits/over other Process	2.5	0.5	2
	PC8	Check the identified feed strip for dimension uniformity/identified tape	4.5	0.5	4
	PC9	make tiny & firm weaver's knots	4.5	0.5	4
	PC10	Find out broken warp ends, find out the location of the broken end, by bringing the hands under the dropper bars, with mechanical droppers. detect the location using the indication lamp & by bringing the hands over the droppers, with electrical warp stop motion	5	1	4
	PC11	Mind the broken warp end in the sized beams with the thrums of the same count of the sized beams, using " weavers ' knots"	5	1	4
	PC12	Basic knowledge of Run the loom by pulling the starting handle with full torque.	5	1	4
	PC13	Clean the machines & work area, so as to ensure good working atmosphere, without damaging the tape in the looms where the cleaning work is carried out as well as in the adjacent & opposite looms . Should not misuse “air”. Can use air for cleaning, only in the areas.	5	1	4
	PC14	Check for operation of weaving and loom apparatus as per the checklist provided	5	1	4
	PC15	Basic knowledge of Fix the desired loom to the weaving and loom machine apparatus in order to achieve the desired operation as per the Work Instructions/ SOPs	5	1	4
	PC16	Understand basic functionality and assembly of weaving and loom machine as per SOP.	3	1	2
	PC17	Adjust the weaving and loom machine controlling and program with the help of tools and software as per requirement.	3	1	2
	PC18	Understand the molding procedure and process to be adopted for completing the work order from the supervisor by referring the Work Instruction document/ SOP manual	3	1	2
	PC19	Ensure that the required material is procured from the store before starting the process	3	1	2
	PC20	Understand the type of looms and weaving required for executing the required operation and ensure that the same is available for operations	3	1	2

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	PC21	Ensure pouring in line with defined standards and specifications	3	1	2
	PC22	Record the feeding observations like interrupted pouring or any abnormality	3	1	2
	PC23	Conduct a test process and produce a sample output as per the sketches/ engineering drawing shared with the supervisor.	3	1	2
	PC24	Conduct a test process and produce a sample output as per the sketches/ engineering drawing shared with the supervisor.	3	1	2
	PC25	In case the parts are not as per the given measurements, send the same for further processing in terms of cutting, finishing etc.	3	1	2
	PC26	Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards	3	1	2
	PC27	Discard the batch which are beyond repair and repair the ones which need minor modifications in settings.	3	1	2
	PC28	Maintain records of each category of work outputs as per the batch etc. so that correction can be organized.	2.5	0.5	2
	PC29	Establish linkage between rejection of output and the pertinent causes for the same (process/ material etc.); Recommend the means for rejection control.	2.5	0.5	2
	PC30	Rectify minor defects like dimension variation, thickness variation etc. by control process parameters etc.	2.5	0.5	2
	PC31	Escalate all issues related to change in surface properties, Tensile strength etc. so that the manufacturing equipment can be reset to achieve the specified output.	2.5	0.5	2
	PC32	Provide first and last output from each batch to the lab for quality check on its composition, properties etc.	2.5	0.5	2
	PC33	Obtain clearance for the entire batch from the lab	1.5	0.5	1
		Sub total	**100**	**25**	**75**
6. RSC/N4806 (CPC/N1116): Auxiliary equipment's used in Plastics Sack and Tape Production	PC1	Some duties include: Inspecting, monitoring, operating fuel systems, fuel oil transfer & supply lines & associated equipment and fossil fuel chillers.	1.5	0.5	1
	PC2	Operating condensate & feed water systems, circulating & cooling water systems, condensate & makeup systems, circulating service water treatment equipment, auxiliary lube oil systems, emission control equipment and miscellaneous equipment.	1.5	0.5	1

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		Pass onsite training programs. Follow safety rules, regulations and procedures.			
	PC3	Connects basic plant services as needed to meet production requirements and makes initial checks of operating conditions before initiating production runs.	1.5	0.5	1
	PC4	Assist in cleaning and lubrication of equipment and tooling and performs various preventative maintenance tasks as needed.	1.5	0.5	1
	PC5	Basic Knowledge of different types of Predrier-Hot air Oven, Hopper Driers, Dehumidifiers etc.	1.5	0.5	1
	PC6	Basic Knowledge of Chiller, Cooling Tower for the controlling temperature of Mould, machine and Fluids.	2.5	0.5	2
	PC7	Basic Knowledge of Operation and Monitoring -- Watching gauges, dials, or other indicators to make sure a machine is working properly.	2.5	0.5	2
	PC8	Basic Knowledge of Compressor and Scrap Grinder.	2.5	0.5	2
	PC9	Understand Equipment Maintenance -- Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.	3	1	2
	PC10	Understand Equipment Selection -- Determining the kind of tools and equipment needed to do a job.	3	1	2
	PC11	Understand & Follow the instructions given on the equipment manual describing the operating process of the equipment	2.5	0.5	2
	PC12	Follow the Safety, Health and Environment related practices developed by the organization	2.5	0.5	2
	PC13	Ensure relevant safety board's/ signs are placed on the shop floor	2.5	0.5	2
	PC14	Operate the machine using the recommended Personal Protective Equipment (PPE) and ensure team members also use the related PPEs at the workplace	2.5	0.5	2
	PC15	Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc.	2.5	0.5	2
	PC16	Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques	2.5	0.5	2
	PC17	Maintain high standards of personal hygiene at the work place	2.5	0.5	2
	PC18	Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	1.5	0.5	1
	Sub total		**40**	**10**	**30**

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7.RSC/N4108 (CPC/N0418): Basic Knowledge of Communication /soft skills.	PC1	Accurately receive information and instructions from the supervisor/operator and fellow workers, getting clarification where required	4	1	3
	PC2	Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt	4	1	3
	PC3	Display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible	4	1	3
	PC4	Basic Knowledge of consult with and assist others to maximize effectiveness and efficiency in carrying out tasks.	4	1	3
	PC5	Basic Study of Fundamental of Computers.	4	1	3
	PC6	Components of Computer: - Hardware and the software	4	1	3
	PC7	display active listening skills while interacting with others at work	4	1	3
	PC8	use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	4	1	3
	PC9	demonstrate responsible and disciplined behaviours at the workplace	4	1	3
	PC10	Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict.	4	1	3
	Sub total		**40**	**10**	**30**
	Total		**400**	**100**	**300**