

QUALIFICATIONS PACK- OCCUPATIONAL STANDARDS FOR PLASTICS INDUSTRY

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 Extrusion

SECTOR: RUBBER

SUB SECTOR: MANUFACTURING/ PLASTICS PROCESSING

OCCUPATION: PLASTICS EXTRUSION

REFERENCE ID: RSC/Q4601 (CPC/Q0303)

ALIGNED TO:

Brief Job Description:

The Individual is responsible to assist the Machine Operator during the Extrusion process and operate Scrap Grinders, Blenders, High Speed Mixers , Agglomerators independently.

Personal Attributes:

This job requires the individual to work as an assistant to the operator and work independently under supervision of that operator. He must have excellent skills and result oriented and positive in attitude. The individual must be attentive and focused in attaining the set objectives. He must be a good learner to understand machines and materials at the level of production he is engaged in.

Qualifications Pack for Machine Operator Assistant – Plastics Extrusion

Job Details	Qualifications Pack Code	RSC/Q4601 (CPC/Q0303)		
	Job Role	Machine Operator Assistant - Plastics Extrusion		
	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 Extrusion	Next review date	31/12/2021
	NSQC Clearance on	21/07/2016		

Job Role	Machine Operator Assistant- Plastics Extrusion
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	3
Minimum Educational Qualifications*	VIII th Standard
Maximum Educational Qualifications*	
Training (Suggested but not mandatory)	No previous training required
Minimum Job Entry Age	18
Experience	No previous experience required
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> RSC/N4601 (CPC/N0311): Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion Concept RSC/N4101 (CPC/N0411): Maintain basic health and safety practices at the workplace, 5S. RSC/N4602 (CPC/N0313): Plastics Compounding / Mixing, Scrap Grinding, Agglomerating RSC/N4603 (CPC/N0314): HDPE /PVC Pipe Extruder & Film Extruder Machine Operation RSC/N4604 (CPC/N0315) : Reporting & Documentation RSC/N4605 (CPC/N0316) : To Carry Out Quality Checks
Performance Criteria	As described in the relevant OS units

Qualifications Pack for Machine Operator Assistant – Plastics Extrusion
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.

Qualifications Pack for Machine Operator Assistant – Plastics Extrusion

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

RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

National Occupational Standards



Overview

This unit is about Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion Concept with emphasizing on Poly Olefins and PVC & Plastics Extrusion Concept.

RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

Unit Code	RSC/N4601 (CPC /N0311)
Unit Title (Task)	Basics Plastics Raw Materials & Additives, Master batches, Pigments & Extrusion Concept
Description	This OS unit is about providing a basic knowledge of Plastics Raw Materials Used in Extrusion Process and The Extrusion Process.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Study about Polymers , Plastics , Additives , Master batches & pigments used in the process • Types of Extrusion Items Produce • Extrusion Process
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Raw Materials	To be competent, the user/individual on the job must be able to: PC1 Study the types of Plastics used in Extrusion and Its Properties PC2 Study the types of Additives , Master batches and Pigments PC3 Store and Handling of Raw Materials & House Keeping
Extrusion Process	PC4 Learn the types of Extruders Used in the Extrusion Process and their Parts PC5 Store and Handling of Finished Products & House Keeping.
Compounding and Mixing	PC6 Ensure the types of Mixing and Compounding PC7 Ensure measurement of Additives, Pigments and Materials.
Scrap Grinding & Agglomerator	PC8 Study and Operation of Scrap Grinding Machines , Blenders & Agglomerator
Health & Safety	PC9 Study about Safety Equipments and Its Use. PC10 Follow the Do's and Don'ts in Area of Operation PC11 Follow the Safety Precaution before Majors Operations.
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 Organization Chart, Relevant legislation, standards, policies, procedures & Code of Conduct followed in the company KA2. Different Types of Products Manufactured by the Company KA3. Quality Check and Grading and Segregation of non conforming Products KA4. Risk and impact of not following defined procedures/work instructions KA5. Types of documentation in organization and importance of the same KA6. Records to be maintained and implications of non-maintenance of the same KA7. The Importance of housekeeping & good shop floor practices (e.g. 3S & 5S) KA8. Health, Safety and Environment guidelines KA9. The Impact of poor practices on health, safety and environment KA10. The Potential hazards and actions to minimize the same. KA11. The Impact of various practices on cost, quality, productivity, delivery and safety

RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

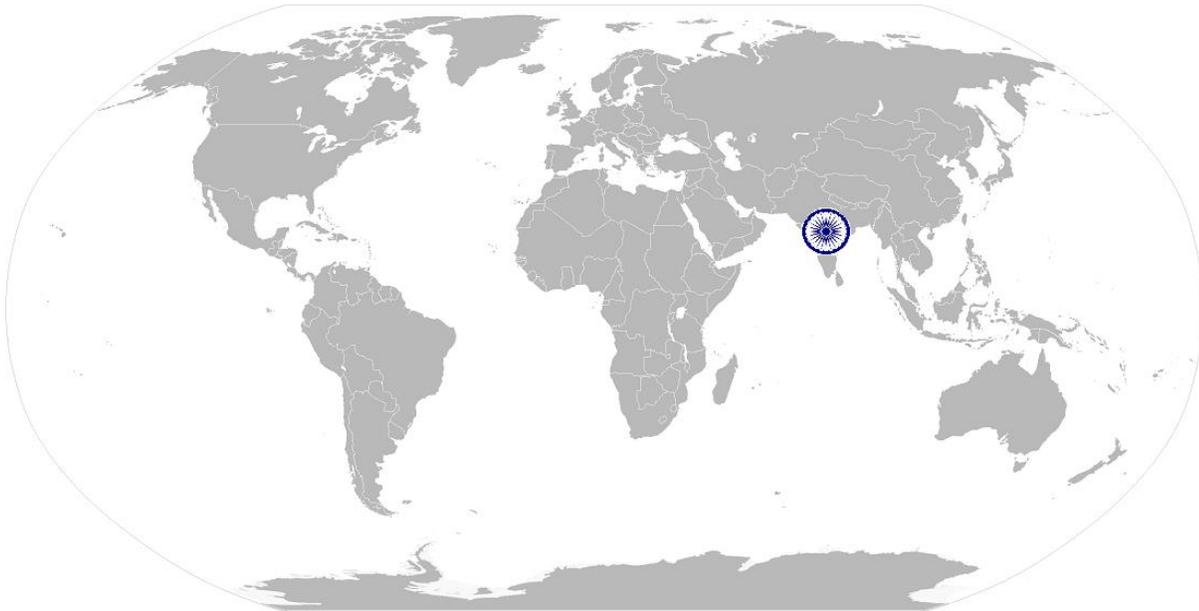
	KA12. Handover/ Takeover the equipment/ work area as per company's SOP
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The Emergency Stops Procedure for Compounding and Extruder Machine</p> <p>KB2. Cleanliness and safety requirements for commencing Compounding & Extruder</p> <p>KB3. Importance of RPM, Temperature and Pressure Parameters.</p> <p>KB4. Preparation of Formulations</p> <p>KB5. Raw Material Feeding Auto / Manual Process,</p> <p>KB6. Health hazards of process and compounding ingredients</p> <p>KB7. Measurement techniques using gauges and balance (for thickness, width and weight)</p> <p>KB8. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster</p> <p>KB9. Knowledge of appropriate batch size with respect to appropriate machinery</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA2. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p> <p>SA3. Enter into the history card details of the fault identified in the plastic product manufactured</p>
	<p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Read and understand manuals, Warning, health and safety instructions, Raw Material Labels, Components, memos, reports, job cards etc</p> <p>SA5. Read images, graphs, diagrams</p> <p>SA6. Understand the various coding systems as per company norms</p>
	<p>Oral Communication (Listening and Speaking skills)</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. Express Opinions or Information clearly</p> <p>SA8. Discuss task lists, schedules, and work-loads with co-workers</p> <p>SA9. Communicate with Supervisors Job & Issue related tasks</p> <p>SA10. Communication between Upstream and Downstream teams</p> <p>SA11. Avoid using slang when communicating with a supervisor /fellow subordinates etc unless it is required</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>

RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

	Integrity
	The user/individual on the job needs to know and understand how to: SA13. Practice honesty with respect to company property and time
	Motivation
	The user/individual on the job needs to know and understand how to: SA14. Take responsibility for completing one's own work assignment SA15. Take initiative to enhance/learn skills in one's area of work SA16. Learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA17. Identify new ways of doing things SA18. Envisage and articulate personal goals; to develop strategies and take action to achieve them.
	Reliability
	The user/individual on the job needs to know and understand how to: SA19. Avoid absenteeism SA20. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA21. Work in disciplined factory environment SA22. Be punctual
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work
	Material and Equipment Handling
	The user/individual on the job needs to know and understand: SB2. The Operation of different types of extruders SB3. Handling of Plastics Raw Materials, Additives and Master Batches SB4. Handling of various types of material handling equipment like forklifts, trolley etc.
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB6. Use common sense and make judgments during day to day basis. SB7. Use reasoning skills to identify and resolve basic problems. SB8. Identify immediate or temporary solutions to resolve delays
	Analytical Thinking

RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

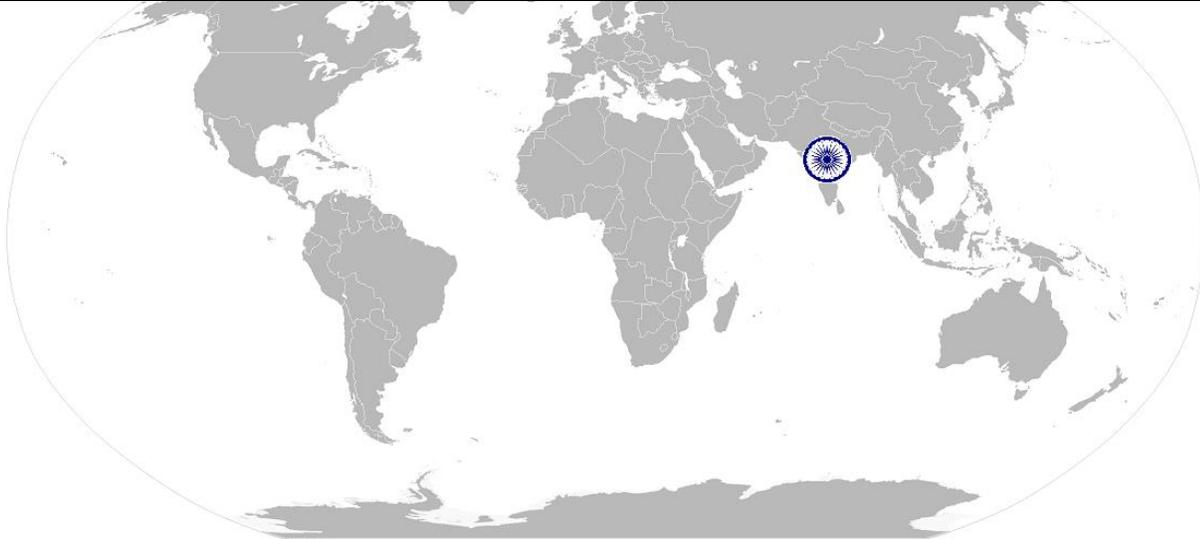
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. Diagnose common problems in the machine based on visual inspection, sound etc</p> <p>SB11. Suggest improvements(if any) in process based on experience</p>
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RSC/N4601 (CPC/N0311) Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion concept

NOS Version Control

NOS Code	RSC/N4601 (CPC/N0311)		
Credits (NSQF)	3	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



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

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.

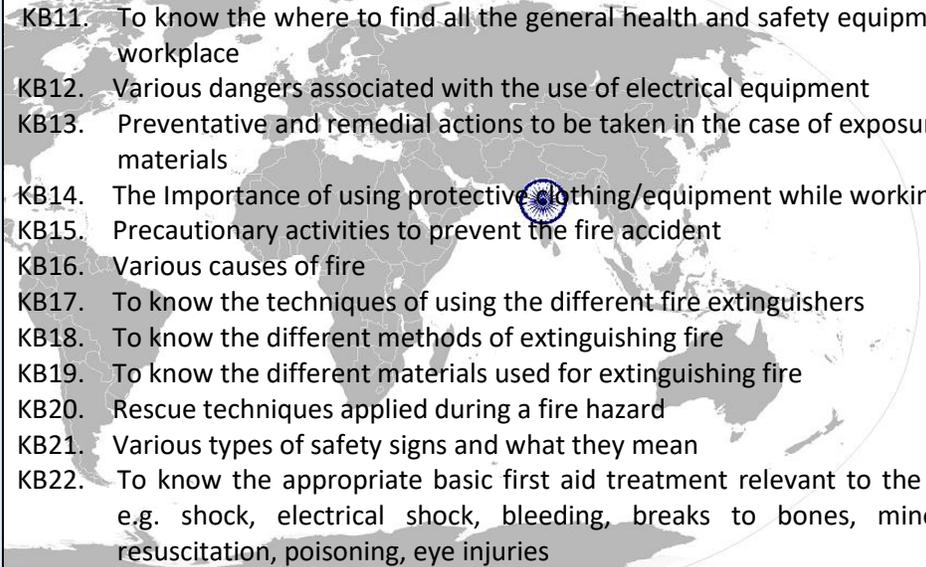
RSC/N4101 (CPC/N0411) Maintain basic health & Safety Practices at the workplace, 5S

National Occupational Standards	Unit Code	RSC/N4101 (CPC/N 0411)
	Unit Title (Task)	Maintain basic health and safety practices at the workplace, 5S
	Description	<p>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.</p> <p>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.</p> <p>This OS is about ensuring all 5S activities both at the shop floor and the office area to facilitate increase in work productivity.</p>
	Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> • 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	<p>The individual on the job should ensure to:</p> <p>PC1. Wear protective clothing/equipment for specific tasks and work conditions</p> <p>PC2. Carry out safe working practices while dealing with hazards to ensure the safety of Self and others.</p> <p>PC3. Ensure good housekeeping practices at all times</p>	
Fire safety	<p>The individual on the job should be able to:</p> <p>PC4. Use the various appropriate fire extinguishers on different types of fires correctly</p> <p>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.</p>	
Emergencies, rescue and first aid procedures.	<p>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.</p> <p>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.</p> <p>PC8. Create awareness amongst others by sharing information on the identified risks.</p>	

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

<p>Ensure sorting, stream lining, storage and documentation, cleaning, standardization and sustenance across the plant premises of the organization.</p>	<p>PC9. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.</p> <p>PC10. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions</p> <p>PC11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP</p> <p>PC12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places</p> <p>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</p> <p>PC14. Ensure that areas of material storage are not overflowing</p> <p>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</p> <p>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</p> <p>PC17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards</p> <p>PC18. Follow the proper labelling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists</p> <p>PC19. Ensure to check the items in the respective areas have been identified as broken or damaged</p> <p>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.</p> <p>PC21. To make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions</p>
Knowledge and Understanding (K)	
<p>B. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The relevant standards, procedures and policies related to Health, Safety and Environment followed in the company</p> <p>KA2. The emergency handling procedures & hierarchy for escalation</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The basic knowledge of Safety procedures (fire fighting, first aid) within the organization</p> <p>KB2. The basic knowledge of various types of PPEs and their usage</p>

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

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- 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 handling
 - 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

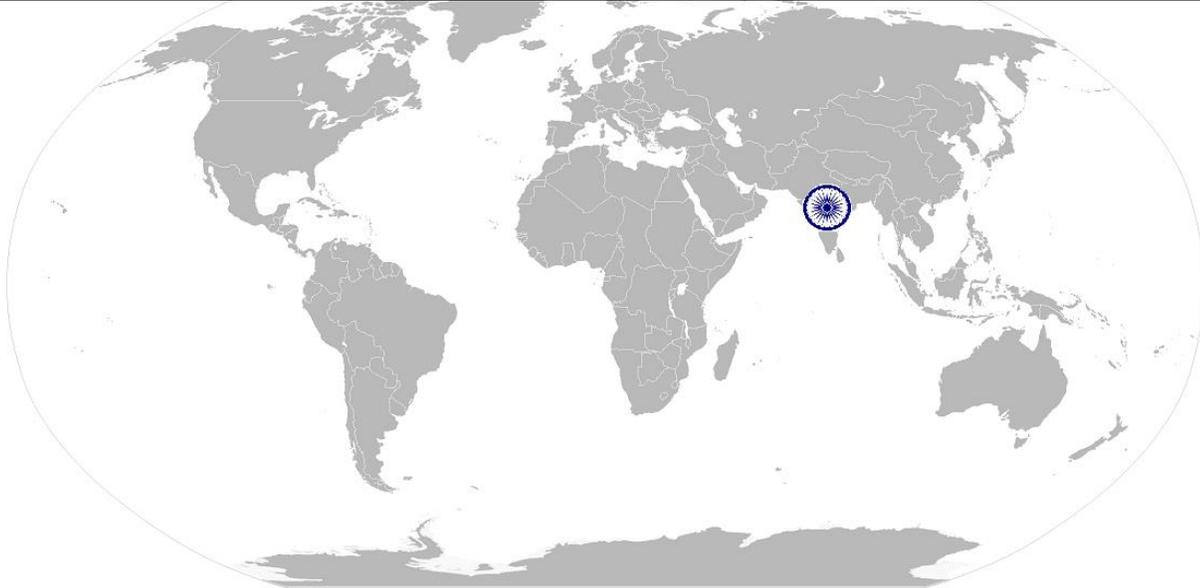
RSC/N4101 (CPC/N0411) Maintain basic health & Safety Practices at the workplace, 5S

	process/ environment/ machinery/ human body. KB36. To have knowledge of best ways of cleaning & waste disposal
Skills (S) [Optional]	
Element	Skills
C. 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
D. 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

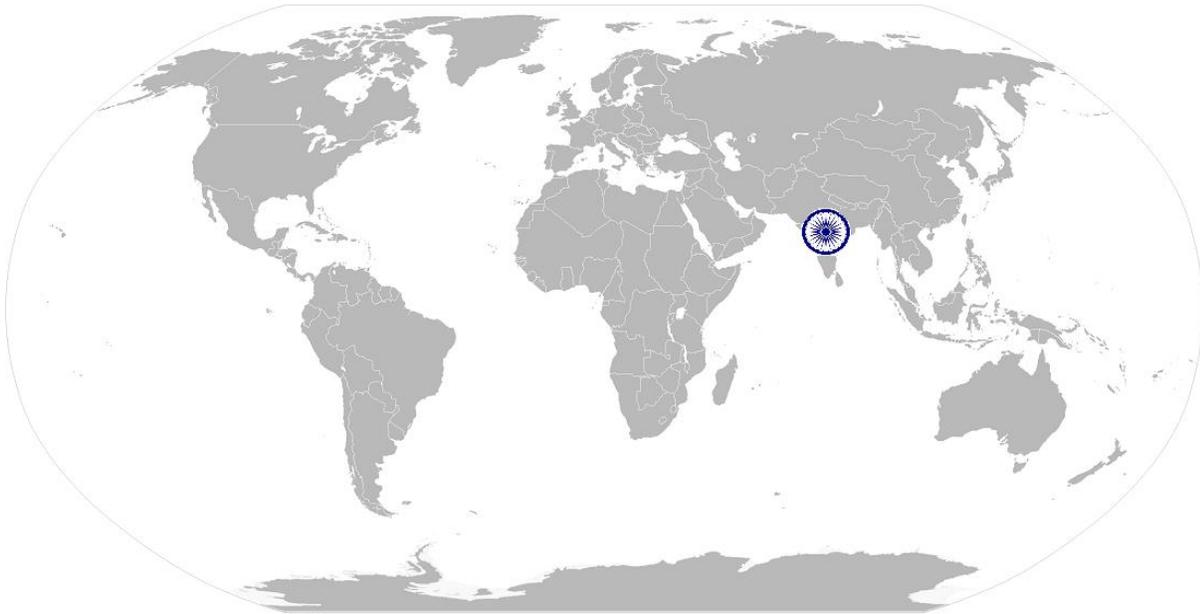
NOS Version Control

NOS Code	RSC/N4101 (CPC/N0411)		
Credits (NSQF)	3	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



RSC/N4602 (CPC/N0313) Plastics Compounding / Mixing, Scrap Grinding, Agglomerating

National Occupational Standards



Overview

This unit is about Plastics Compounding and Mixing, Scrap Grinding & Agglomerating.

RSC/N4602 (CPC/N0313) Plastics Compounding / Mixing, Scrap Grinding, Agglomerating

Unit Code	RSC/N4602 (CPC / N0313)
Unit Title (Task)	Deal With Plastics Compounding / Mixing, Scrap Grinding, Agglomerating
Description	This OS unit is about providing knowledge of Plastics Compounding and Mixing
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Understanding Chemicals, Additives and Colorants • Types of Blenders and Mixers • Parameters Involved in High Speed Mixing and Blending • Study & Operation of Scrap Grinding & Agglomerating • Health and Safety
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Understanding Chemicals, Additives and Colorants	To be competent, the user/individual on the job must be able to: PC1 Study the types of Chemicals, Additives and Colorants. PC2 Laid down Formulation for different Products. PC3 Do weighing and Batch Size
Types of Blenders and Mixers	PC4 Study the types of Blenders, Mixers and their Parts PC5 Prepare Batches as per the formulations PC6 Do loading and unloading of Batches.
Parameters Involved in High Speed Mixing and Blending	PC7 Ensure the Temperature, Pressure and Speed involved in Blenders and Mixers. PC8 Ensure the importance of each and every Parameters. PC9 Precaution to be taken care during the batch preparation. PC10 Storing of batches after preparation.
Types of Scrap Grinders & Agglomerators	PC11 Study the types of Scrap Grinders and Agglomerator and their parts PC12 Study the operation & Trouble Shooting PC13 Ensure that storing, House Keeping, Safety while operation
Health & Safety	PC14 Study about safety equipments and Its use. PC15 Follow the Do's and Don'ts in area of operation PC16 Follow the safety precaution before majors operations.
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. Different Types of formulation vis-a-vis Products Manufactured by the Company KA2. Quality Check and Grading and Segregation of non conforming Batches KA3. Risk and impact of not following defined procedures/work instructions KA4. Types of documentation in organization and importance of the same KA5. Records to be maintained and implications of non-maintenance of the same KA6. Importance of housekeeping & good shop floor practices (e.g. 3S & 5S) KA7. Health, Safety and Environment guidelines KA8. The impact of poor practices on health, safety and environment KA9. Potential hazards and actions to minimize the same. KA10. The impact of various practices on cost, quality, productivity, delivery and

RSC/N4602 (CPC/N0313) Plastics Compounding / Mixing, Scrap Grinding, Agglomerating

	<p>safety</p> <p>KA11. Handover/ Takeover the equipment/ work area as per company's SOP</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The Emergency Stops Procedure for Mixing and Blending Machines.</p> <p>KB2. Machine Cleanliness and safety requirements for commencing Compounding Mixing & Blender.</p> <p>KB3. Importance of RPM, Temperature and Pressure Parameters.</p> <p>KB4. Importance of Formulations vis-a-vis Items produced.</p> <p>KB5. Health hazards of process and compounding ingredients</p> <p>KB6. Measurement techniques using gauges and balance.</p> <p>KB7. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster</p> <p>KB8. Knowledge of appropriate batch size with respect to appropriate machinery</p>
Skills (s) [optional]	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA2. Enter into the history card details of the fault identified in the plastic product manufactured</p>
	<p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. Read and understand manuals, Warning, health and safety instructions, Raw Material Labels, Components, memos, reports, job cards etc</p> <p>SA4. Read images, graphs, diagrams</p> <p>SA5. Understand the various coding systems as per company norms</p>
	<p>Oral Communication (Listening and Speaking skills)</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA6. Express Opinions or Information clearly</p> <p>SA7. Discuss task lists, schedules, and work-loads with co-workers</p> <p>SA8. Communicate with Supervisors Job & Issue related tasks</p> <p>SA9. Communicate between Upstream and Downstream teams</p> <p>SA10. Avoid using jargon, slang or acronyms when communicating with a supervisor /fellow subordinates etc unless it is required</p> <p>SA11. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	<p>Integrity</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA12. Practice honesty with respect to company property and time</p>
	<p>Motivation</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Take responsibility for completing one's own work assignment</p>

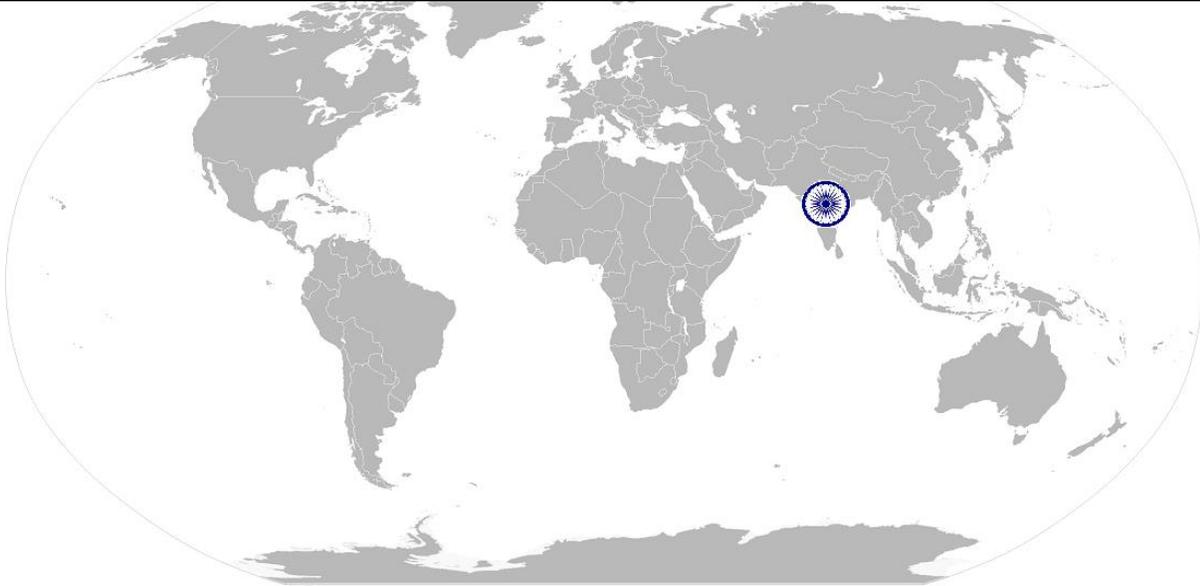
RSC/N4602 (CPC/N0313) Plastics Compounding / Mixing, Scrap Grinding, Agglomerating

	SA14. Take initiative to enhance/learn skills in one's area of work SA15. Learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA16. Identify new ways of doing things SA17. Envisage and articulate personal goals; to develop strategies and take action to achieve them.
	Reliability
	The user/individual on the job needs to know and understand how to: SA18. Avoid absenteeism SA19. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA20. Work in disciplined factory environment SA21. Be punctual
E. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work
	Material and Equipment Handling
	The user/individual on the job needs to know and understand: SB2. Operate different types of Blenders and Mixers, Scrap Grinder & Agglomerator. SB3. Handling of Plastics Additives, Colorants and Master Batches SB4. Handling of various types of material handling equipment like forklifts, trolley etc
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB6. Use common sense and make judgments during day to day basis. SB7. Use reasoning skills to identify and resolve basic problems. SB8. Identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Diagnose common problems in the machine based on visual inspection, sound etc SB10. Suggest improvements(if any) in process based on experience

RSC/N4602 (CPC/N0313) Plastics Compounding / Mixing, Scrap Grinding, Agglomerating

NOS Version Control

NOS Code	RSC/N4602 (CPC/N0313)		
Credits (NSQF)	7.5	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



RSC/N4603 (CPC/N0314) HDPE /PVC Pipe Extruder & Film Extruder Machine Operation

National Occupational Standards



Overview

This unit is about HDPE /PVC Pipe Extruder & Film Extruder Machine Operation.

RSC/N4603 (CPC/N0314) HDPE /PVC Pipe Extruder & Film Extruder Machine Operation

National Occupational Standards	Unit Code	RSC/N4603 (CPC /N0314)
	Unit Title (Task)	Deal With HDPE / PVC Pipe Extruder & Film Extruder Machine Operation.
	Description	This OS unit is about knowledge of HDPE /PVC Pipe Extruder & Film Extruder Machine Operation.
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> • HDPE / PVC Pipe Extruders and their parts • Film Extruders & their Parts • Extrusion Process and Parameters. • Material Loading & Handling. • Finished Items Segregating & Storing. • Health and Safety
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Extruders and their parts	To be competent, the user/individual on the job must be able to: PC1 Study the types of HDPE / PVC Extruders & their Parts. PC2 Study the types of Film Extruders & their Parts PC3 Study about start up & Shutting down Process. PC4 Do threading (Initial Take up) of Pipes & Films PC5 Follow the safety Precaution to be taken during assembling and disassembling.
	Material Loading & Handling	PC6 Ensure material Loading and Handling. PC7 Handle the Finished Products Segregation & Stacking PC8 Ensure Post Production Operation
	Health & Safety	PC9 Follow the safety equipments and Its Use. PC10 Follow Do's and Don'ts in area of operation PC11 Follow the safety precaution before major operations.
	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 Organization Chart, Relevant legislation, standards, policies, procedures & Code of Conduct followed in the company KA2. Different Types of Products Manufactured by the Company KA3. Quality Check and Grading and Segregation of non conforming Products KA4. Risk and impact of not following defined procedures/work instructions KA5. Types of documentation in organization and importance of the same KA6. Records to be maintained and implications of non-maintenance of the same KA7. The importance of housekeeping & good shop floor practices (e.g. 3S & 5S) KA8. Health, Safety and Environment guidelines KA9. The impact of poor practices on health, safety and environment KA10. Potential hazards and actions to minimize the same. KA11. The impact of various practices on cost, quality, productivity, delivery and safety Handover/ Takeover the equipment/ work area as per company's SOP	
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Emergency Stops Procedure for Extruder Machines	

RSC/N4603 (CPC/N0314) HDPE /PVC Pipe Extruder & Film Extruder Machine Operation

	<p>KB2. Cleanliness and safety requirements before and after operation.</p> <p>KB3. Process Parameters and its control.</p> <p>KB4. Common Faults and Trouble shooting.</p> <p>KB5. Health hazards of process and safety precautions.</p> <p>KB6. Measurement techniques using gauges and balance (for thickness, width and weight)</p> <p>KB7. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster</p> <p>KB8. Knowledge of appropriate batch size with respect to appropriate machinery</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to:
	SA1. Fill up appropriate technical forms, process charts, activity logs in required format of the company
	SA2. Enter into the history card details of the fault identified in the plastic product manufactured
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA3. Read and understand manuals, Warning, health and safety instructions, Raw Material Labels, Components, memos, reports, job cards etc
	SA4. Read images, graphs, diagrams
	SA5. Understand the various coding systems as per company norms
	Oral Communication (Listening and Speaking skills)
The user/individual on the job needs to know and understand how to:	
SA6. Express Opinions or Information clearly	
SA7. Discuss task lists, schedules, and work-loads with co-workers	
SA8. Communicate with Supervisors Job & Issue related tasks	
SA9. Communicate between Upstream and Downstream teams	
SA10. Avoid using jargon, slang or acronyms when communicating with a supervisor /fellow subordinates etc unless it is required	
SA11. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)	
Integrity	
The user/individual on the job needs to know and understand how to:	
SA12. Practice honesty with respect to company property and time	
Motivation	
The user/individual on the job needs to know and understand how to:	
SA13. Take responsibility for completing one's own work assignment	
SA14. Take initiative to enhance/learn skills in one's area of work	
SA15. Learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.	
SA16. Identify new ways of doing things	
SA17. Envisage and articulate personal goals; to develop strategies and take action	

RSC/N4603 (CPC/N0314) HDPE /PVC Pipe Extruder & Film Extruder Machine Operation

	to achieve them.
	Reliability
	The user/individual on the job needs to know and understand how to:
	SA18. Avoid absenteeism
	SA19. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations
	SA20. Work in disciplined factory environment
	SA21. Be punctual
F. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. Make decisions pertaining to the concerned area of work
	Material and Equipment Handling
	The user/individual on the job needs to know and understand:
	SB2. The operation of different types of extruders
	SB3. Handling of Plastics Raw Materials, Additives and Master Batches
	SB4. Handling of various types of material handling equipment like forklifts, trolley etc
	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB5. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)
	SB6. Use common sense and make judgments during day to day basis.
	SB7. Use reasoning skills to identify and resolve basic problems.
	SB8. Identify immediate or temporary solutions to resolve delays
	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB9. Diagnose common problems in the machine based on visual inspection, sound etc
	SB10. Suggest improvements(if any) in process based on experience

RSC/N4603 (CPC/N0314) HDPE /PVC Pipe Extruder & Film Extruder Machine Operation

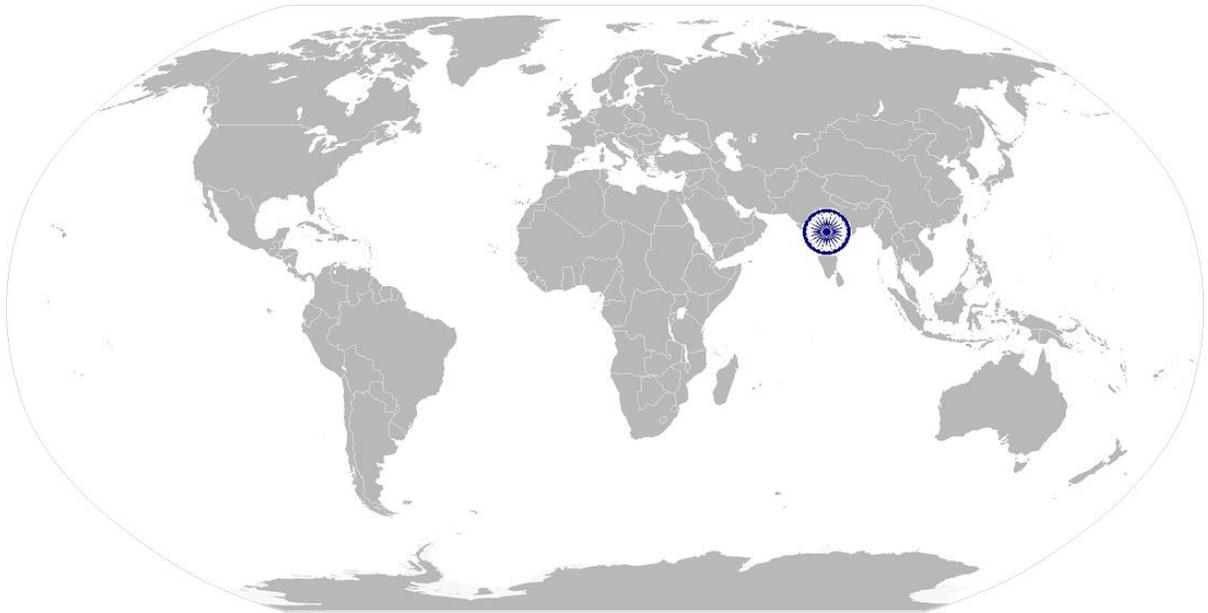
NOS Version Control

NOS Code	RSC/N4603 (CPC/N0314)		
Credits (NSQF)	4.5	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



RSC/N4604 (CPC/N0315) Reporting & Documentation

National Occupational Standards



Overview

This unit is about reporting and documentation

RSC/N4604 (CPC/N0315) Reporting & Documentation

National Occupational Standards

Unit Code	RSC/N4604 (CPC / N0315)
Unit Title (Task)	To carry out reporting and documentation
Description	This unit is about carrying out reporting and documentation
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Reporting of data/problem/incidents etc • Documentation • Information Security
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Reporting	To be competent, the user/individual on the job must be able to: PC1 Report data/problems/incidents as per the laid down procedure in the prescribed format and registers. PC2 Report to the appropriate authority as laid down by the company procedure.
Recording and Documentation	PC3 Identify documentation to be completed relating to the job profile. PC4 Record details accurately in an appropriate format. PC5 Complete all documentation within stipulated time according to company procedure. PC6 Make sure documents are available to all appropriate authorities to inspect.
Information Security	PC7 Respond to requests for information in an appropriate manner whilst following organizational procedures. PC8 Inform the appropriate authority of requests for information received.
Knowledge and Understanding (K)	
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different methods of recording information. KB2. Various documents that need to be maintained. KB3. The company procedure for filling/maintaining up the documents. KB4. Procedures for reporting to the appropriate authority. KB5. Procedures for recording damage, breakages etc. KB6. The importance of accurate documentation completion within a prescribed timeframe. KB7. Actions to be taken if the documents are not correct. KB8. The importance of maintaining the security and confidentiality of recorded information. KB9. Procedures to maintain confidentiality of information KB10. Appropriate method for responding to requests for information
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company

RSC/N4604 (CPC/N0315) Reporting & Documentation

	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. Rread and understand manuals, health and safety instructions, memos, documents, reports, job cards etc</p> <p>SA4. Read images, graphs, diagrams etc</p> <p>SA5. Understand the various coding systems as per company norms</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA6. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA7. Respond appropriately to any queries</p> <p>SA8. Communicate with supervisor, upstream and downstream teams</p> <p>SA9. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	Integrity
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA10. Practice honesty with respect to company property and time</p> <p>SA11. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA12. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	Motivation
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Take responsibility for completing one’s own risk assignment</p> <p>SA14. Take initiative to enhance/learn skills in one’s area of work</p> <p>SA15. Learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA16. Identify new ways of doing things</p> <p>SA17. Envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	Reliability
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA18. Avoid absenteeism</p> <p>SA19. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA20. Work in disciplined factory environment</p> <p>SA21. Be punctual</p>
	Decision Making
B. Professional Skills	<p>The user/individual on the job needs to know and understand how to:</p> <p>The Operation of different types of extruders</p> <p>Handling of rubber compound & chemicals</p> <p>Handling of various types of material handling equipment like forklifts, trolley The</p>

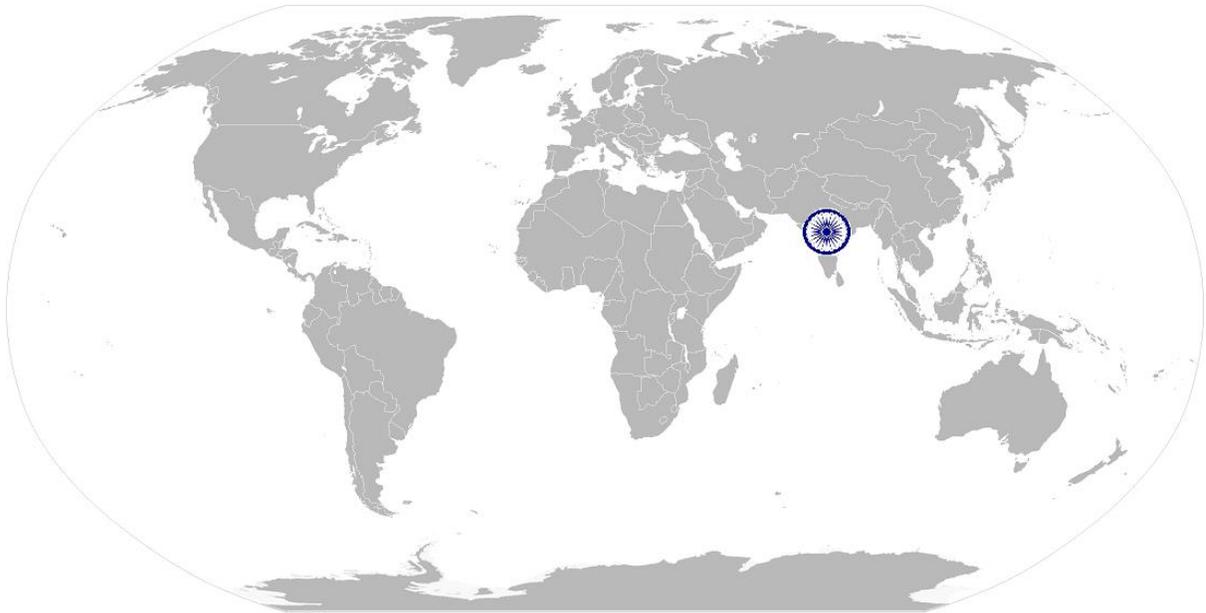
RSC/N4604 (CPC/N0315) Reporting & Documentation

	capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological Principles needed to explore and adapt systems.
	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB2. Seek clarification on problems from others SB3. Apply problem-solving approaches in different situations SB4. Refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. Interpret quality for sheet SB6. Suggest improvements(if any) in process/product/materials based on results and experience
	The user/individual on the job needs to know and understand how to: SB7. Proper collection of waste material SB8. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience SB9. Diagnose common problems in the machine based on visual inspection, sound , temperature etc SB10.Suggest improvements(if any) in process based on experience
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB11. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB12. Apply problem-solving approaches in different situations SB13. Refer anomalies to the line manager

RSC/N4604 (CPC/N0315) Reporting & Documentation

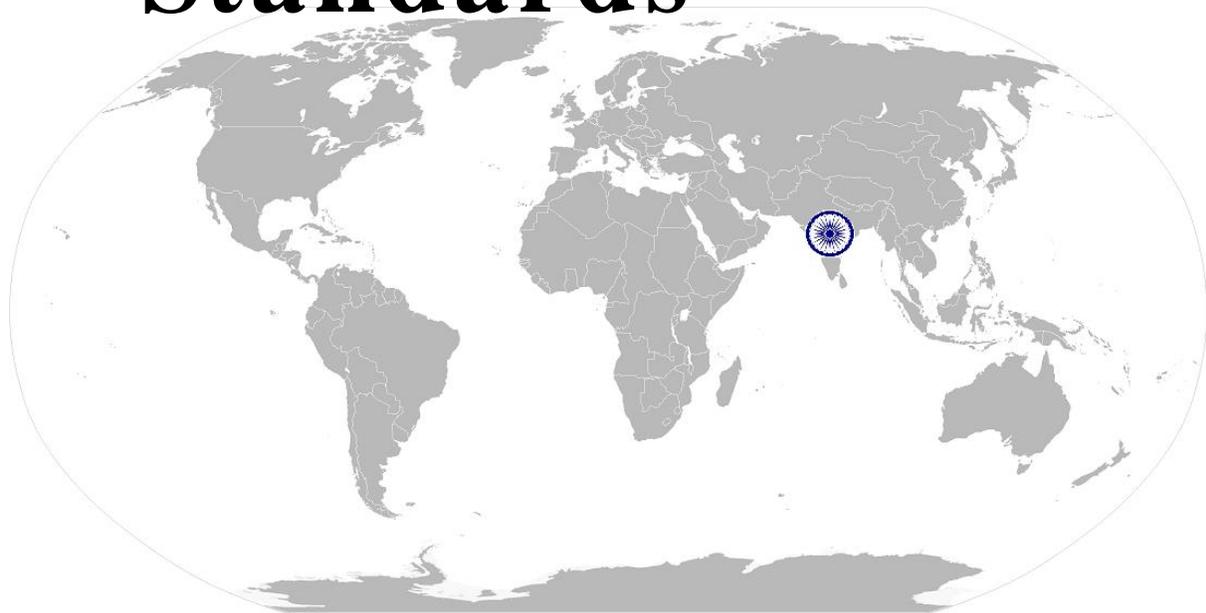
NOS Version Control

NOS Code	RSC/N4604 (CPC/N0315)		
Credits (NSQF)	3	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



RSC/N4605 (CPC/N0316) To Carry Out Quality Checks

National Occupational Standards



Overview

This unit is about carrying out quality checks.

RSC/N4605 (CPC/N0316) To Carry Out Quality Checks

National Occupational Standards	Unit Code	RSC/N4605 (CPC / N0316)
	Unit Title (Task)	To carry out quality checks
	Description	This unit is about carrying out quality control activities
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Inspection: Carrying out quality checks to identify problems • Analysis: Take corrective actions • Reporting the results
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Inspection	To be competent, the user/individual on the job must be able to: PC1 Ensure that total range of checks as per the prescribed national and International standards on regular intervals throughout the shifts. PC2 Use appropriate measuring instruments, equipment, tools, accessories etc, as prescribed / required
	Analysis	PC3 Identify non-conformities to quality assurance standards. PC4 Identify potential causes of non-conformities to quality assurance standards PC5 Identify impact on final product due to non-conformance to prescribed Standards. PC6 Evaluate the need for action to ensure that problems do not reoccur. PC7 Suggest corrective action to address problem. PC8 Review effectiveness of corrective action.
	Reporting	PC9 Interpret the results of the quality check correctly. PC10 Take up results of the findings with QC in charge/appropriate authority. PC11 Take up the results of the findings within stipulated time PC12 Record of results of action taken. PC13 Record adjustments not covered by established procedures for future reference. PC14 Review effectiveness of action taken. PC15 Follow reporting procedures where the cause of defect cannot be identified.
	Knowledge and Understanding (K)	
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The importance of quality control procedures with respect to national and international standards. KB2. Relevance and importance of activities and how they contribute to the achievement of the quality objectives,	
	KB3. Proper procedure for selecting the material/product and performing quality checks without affecting the material KB4. Availability of work instructions, as necessary, KB5. Characteristics of the product/material	

RSC/N4605 (CPC/N0316) To Carry Out Quality Checks

	<p>KB6. Use of suitable equipment.</p> <p>KB7. Availability and use of monitoring and measuring devices,</p> <p>KB8. The requirements of records.</p> <p>KB9. The Importance of maintaining accurate up-to-date records.</p> <p>KB10. Need to report within the stipulated time.</p> <p>KB11. Implications of inaccurate measuring and testing instruments and equipment.</p> <p>KB12. The cost of non-conformance to quality standards.</p> <p>KB13. Implications (impact on internal/external customers) of defective products, materials or components</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	Oral Communication (Listening and Speaking skills)
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>	
Integrity	
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>	

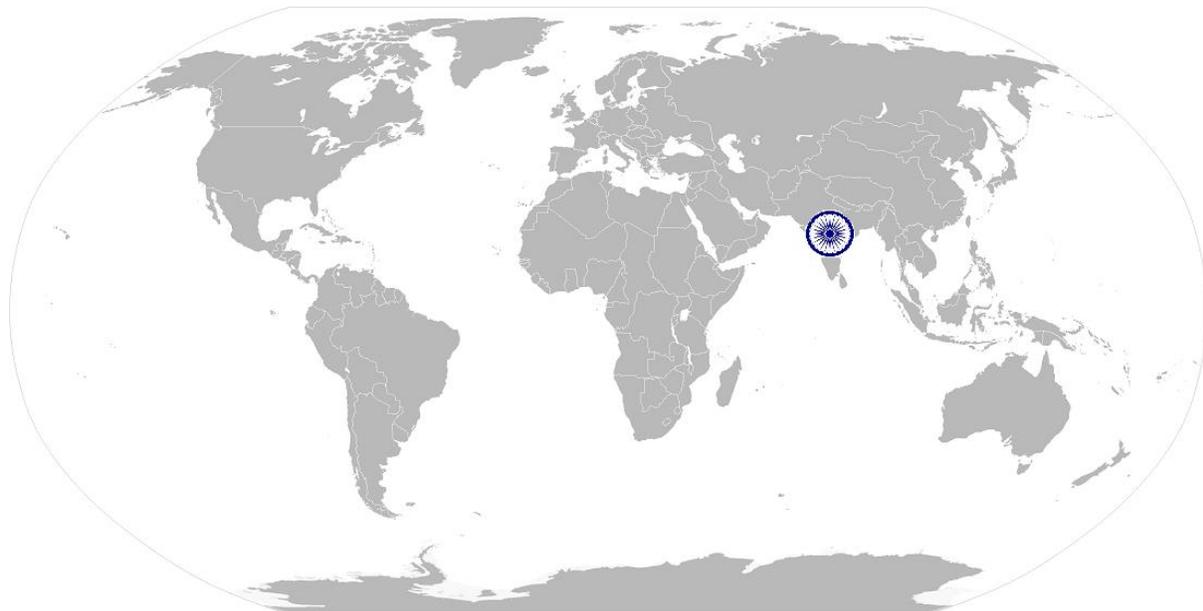
RSC/N4605 (CPC/N0316) To Carry Out Quality Checks

	Motivation
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one’s own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in one’s area of work</p> <p>SA18. Learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA19. Identify new ways of doing things</p> <p>SA20. Envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	Reliability
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. The Operation of different types of measuring instruments.</p> <p>SB2. The Operation of different types of Testing equipments.</p> <p>SB3. Handle of various types of material handling equipment like forklifts, trolley.</p> <p>SB4. Apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.</p>
	Plan and Organize
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. Seek clarification on problems from others</p> <p>SB6. Apply problem-solving approaches in different situations</p> <p>SB7. Refer anomalies to the line manager</p>
	Customer Centricity
	NA
	Problem Solving
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. Interpret quality for sheet</p> <p>SB9. Suggest improvements(if any) in process/product/materials based on results and experience</p>
Analytical Thinking	
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. Proper collection of waste material</p> <p>SB11. Identify defects in the material and communicate it at the earliest and suggest improvements (if any) in process/material based on experience</p> <p>SB12. Diagnose common problems in the machine based on visual inspection, sound , temperature etc</p> <p>SB13. To suggest improvements(if any) in process based on experience</p>	

RSC/N4605 (CPC/N0316) To Carry Out Quality Checks

NOS Version Control

NOS Code	RSC/N4605 (CPC/N0316)		
Credits (NSQF)	3	Version number	1.0
Sector	Rubber	Drafted on	18/05/2016
Sub Sector	Manufacturing / Plastics Processing	Last reviewed on	26/12/2016
Occupation	Plastics Extrusion	Next review date	31/12/2021



Qualifications Pack For Machine operator Assistant - Plastics Extrusion

CRITERIA FOR ASSESSMENT OF TRAINEES					
Job Role: Machine Operator Assistant – Plastics Extrusion					
Qualification Pack Code: RSC/N4601 (CPC/Q0303)					
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/N4601 (CPC/N0311): Basics Plastics Raw Materials, Additives, Master batches, pigments & Extrusion Concept	PC1	Understanding Types of Plastics used in Extrusion and Its Properties	8.5	2.5	6
	PC2	Types of Additives , Master batches and Pigments	8.5	2.5	6
	PC3	Storing and Handling of Raw Materials and House Keeping	8.5	2.5	6
	PC4	Types of Extruders Used in the Extrusion Process and their Parts	8.5	2.5	6
	PC5	Storing and Handling of Finished Products and House Keeping.	8.5	2.5	6
	PC6	Types of Mixing and Compounding	8.5	2.5	6
	PC7	Measurement of Additives, Pigments and Materials.	8	2	6
	PC8	Study and Operation of Scrap Grinding Machines , Blenders & Agglomerator	8	2	6
	PC9	Understanding Safety Equipment's and Its Use.	8	2	6
	PC10	Do's and Don'ts in Area of Operation	6	2	4
	PC11	Safety Precaution Majors before Operations.	6	2	4
Sub Total			87	25	62

Qualifications Pack For Machine operator Assistant - Plastics Extrusion

2 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	2.5	0.5	2
	PC2. Carry out safe working practices while dealing with hazards to ensure the safety of self and others.	2.5	0.5	2
	PC3. Apply good housekeeping practices at all times	2.5	0.5	2
	PC4. Use the various appropriate fire extinguishers on different types of fires correctly	2.5	0.5	2
	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 which can potentially harm man/ machine during operations.	2.5	0.5	2
	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 unnecessary 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	1.5	0.5	1
	PC12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places	1.5	0.5	1
	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	1.5	0.5	1
	PC14. Ensure that areas of material storage areas are not overflowing PC15. 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	1.5	0.5	1

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	required			
	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 levelling 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
	Subtotal	40	10	30
3.RSC/N4602 (CPC/N0313): Plastics Compoundin g / Mixing, Scrap, Grinding, Agglomeratin g	PC1 Understanding Types of Chemicals, Additives and Colorants.	5	1	4
	PC2 Formulation laid down for different Products	5	1	4
	PC3 Weighing and Batch Size	5	1	4
	PC4 Types of Blenders , Mixers and their Parts	5	1	4
	PC5 Preparation Batches as per the formulations.	5	1	4
	PC6 Loading and unloading of Batches.	5	1	4
	PC7 Temperature, Pressure and Speed involved in Blenders and Mixers.	6	2	4
	PC8 Importance of each and every Parameters.	8	1	7
	PC9 Precaution to be taken care during the batch preparation.	8	1	7
	PC10 Storing of batches after preparation.	8	1	7
	PC11 Types of Scrap Grinders and Agglomerator and their parts	8	1	7
	PC12 Operation & Trouble Shooting	7.5	0.5	7
	PC13 Storing, House Keeping, Safety while operation	5.5	0.5	5
	PC14 Understanding Safety Equipment's and Its Use.	4.5	0.5	4
	PC15 Do's and Don'ts in Area of Operation	4.5	0.5	4
	PC16 Safety Precaution Majors before Operations.	5	1	4
	Subtotal	95	15	80

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4.RSC/N4603 (CPC/N0314) : HDPE /PVC Pipe Extruder & Film Extruder Machine Operation	PC1	Types of HDPE / PVC Extruders & their Parts.	3	1	2
	PC2	Types of Film Extruders & their Parts	5	1	4
	PC3	Starting up & Shutting down Process.	5	1	4
	PC4	Threading (Initial Take up) of Pipes & Films	5	1	4
	PC5	Safety Precaution taken during assembling and disassembling.	6	2	4
	PC6	Material Loading and Handling.	6	2	4
	PC7	Finished Products Segregation & Stacking	6	2	4
	PC8	Post Production Operation	6	2	4
	PC9	Understanding Safety Equipment's and Its Use.	5	1	4
	PC10	Do's and Don'ts in Area of Operation	5	1	4
	PC11	Safety Precaution Majors before Operations.	3	1	2
	Subtotal		55	15	40
5.RSC/N4604 (CPC/N0315): Reporting & Documentati on	PC1	Report data/problems/incidents as per the laid down procedure in the prescribed format and registers.	6	2	4
	PC2	Report to the appropriate authority as laid down by the company procedure.	6	2	4
	PC3	Identify documentation to be completed relating to the job profile.	8	2	6
	PC4	Record details accurately in an appropriate format.	10	4	6
	PC5	Complete all documentation within stipulated time according to company procedure.	10	4	6
	PC6	Make sure documents are available to all appropriate authorities to inspect.	8	2	6
	PC7	Respond to requests for information in an appropriate manner whilst following organizational procedures.	8	2	6
	PC8	Inform the appropriate authority of requests for information received.	8	2	6
	Subtotal		64	20	44
6. RSC/N4605 (CPC/N0316) : To Carry Out Quality Checks	PC1	Ensure that total range of checks as per the prescribed national and International standards on regular intervals throughout the shifts.	3	1	2
	PC2	Use appropriate measuring instruments, equipment, tools, accessories etc., as prescribed / required	3	1	2
	PC3	Identify non-conformities to quality assurance standards.	3	1	2
	PC4	Identify potential causes of non-conformities	5	1	4

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	to quality assurance standards			
PC5	Identify impact on final product due to non-conformance to prescribed Standards.	5	1	4
PC6	Evaluating the need for action to ensure that problems do not reoccur.	5	1	4
PC7	Suggest corrective action to address problem.	5	1	4
PC8	Review effectiveness of corrective action.	5	1	4
PC9	Interpret the results of the quality check correctly	5	1	4
PC10	Take up results of the findings with QC in charge/appropriate authority.	5	1	4
PC11	Take up the results of the findings within stipulated time	3	1	2
PC12	Record of results of action taken.	3	1	2
PC13	Record adjustments not covered by established procedures for future reference.	3	1	2
PC14	Review effectiveness of action taken.	3	1	2
PC15	Follow reporting procedures where the cause of defect cannot be identified.	3	1	2
		59	15	44
	Total	400	100	300