QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY

Contents

1. Introduction and Contacts..... 1
2. Qualifications Pack.....2
3. OS Units.....2

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

Contact Us:
PHD House (4th Floor),
Opp. Asian Games Village,
Siri Fort Institutional Area, New Delhi - 110016

E-mail:
info@rsdcindia.in

Introduction

Qualifications Pack- Transfer Moulding Operator

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: 1.Tyre 2. Non- Tyre

OCCUPATION: Moulding/Curing

REFERENCE ID: RSC/ Q 0206

ALIGNED TO: NCO-2004/NIL

Brief Job Description: The Transfer Moulding operator is responsible for operating the machine and feed the rubber compound and other materials into the machine for making rubber parts.

Personal Attributes: This job requires the individual to be result oriented.At all times he should strive to achieve highest quality standards. The operator is expected to be able to work in a factory environment.

Job Details

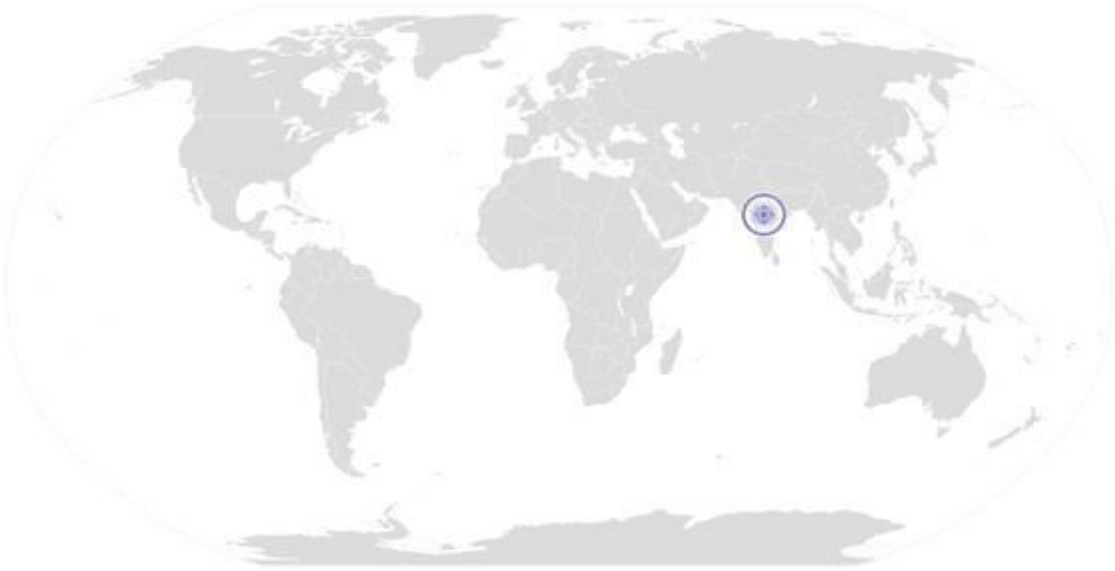
Qualifications Pack Code	**RSC/ Q 0206**		
Job Role	**Transfer Moulding Operator**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Sector	**Rubber Manufacturing**	**Drafted on**	**20/03/13**
Sub-sector	**Tyre and Non- tyre**	**Last reviewed on**	**29/12/15**
Occupation	**Moulding/Curing**	**Next review date**	**29/12/17**
NSQC Clearnace on	**20/07/2015**		

Job Role	**Transfer Moulding Operator**
Role Description	The Transfer Moulding operator is responsible for operating the machine and feed the rubber compound and other materials into the machine for making rubber parts.
NSQF level	4
Minimum Educational Qualifications*	Class X
Maximum Educational Qualifications*	ITI/Graduate
Training (Suggested but not mandatory)	Training on operation of machinery
Minimum Job Entry Age	18 years
Experience	Worked as a semi-skilled helper for 3-6 months in the same role
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. RSC/ N0601 (Prepare transfer moulding machine) 2. RSC/ N0602 (Perform transfer moulding operation) 3. RSC/ N0603 (Undertake post transfer moulding activities) 4. RSC/ N5001 (To carry out housekeeping) 5. RSC/ N5002 (To carry out reporting and documentation) 6. RSC/ N5003 (To carry out quality checks) 7. RSC/ N5004 (To carry out problem identification and escalation) **Optional:** 8. NA
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
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.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
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.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
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.
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.
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.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or 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.

National Occupational Standard



Overview

This unit is about preparing transfer moulding machine and other accessories for transfer moulding operation to make rubber products

National Occupational Standard

Unit Code	RSC / N 0601
Unit Title (Task)	Prepare transfer moulding machine
Description	This unit is about preparing equipment for transfer moulding operation
Scope	This unit/task covers the following: • Ensuring housekeeping and safety in the moulding area • Prepare the moulding machine (Hydraulic press) • Setting parameters on the moulding machine • Loading the mould

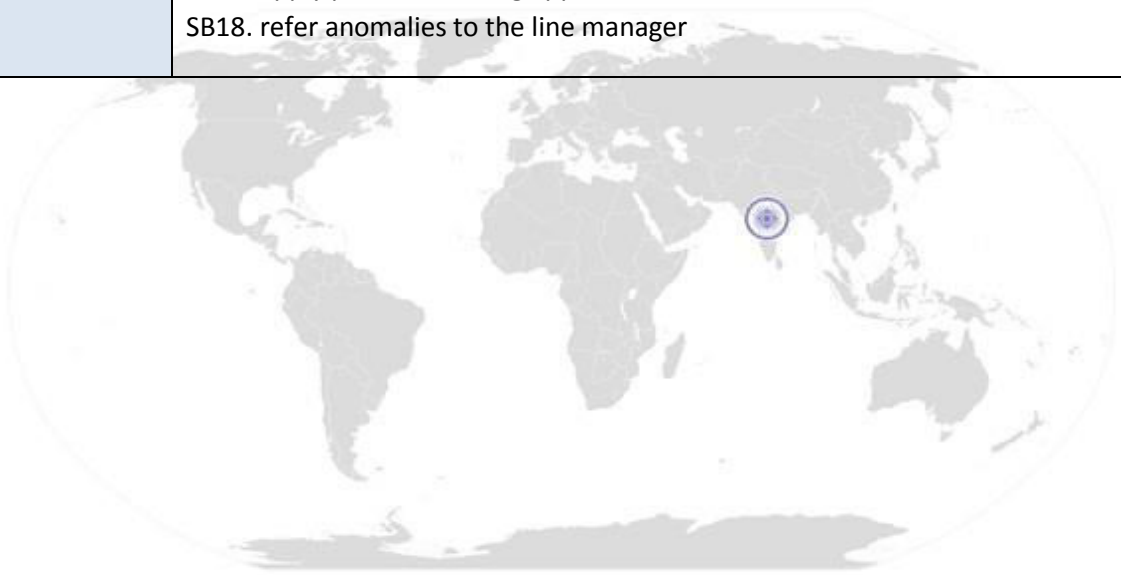
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Equipment readiness	To be competent, the user/individual on the job must be able to PC1. Ensure that transfer moulding equipment is clean and fit for use as per SOP PC2. Ensure emergency safety feature of machine is working PC3. Precheck the hydraulic machine before starting actual moulding process to see if there is any malignancy. PC4. Select the correct mould PC5. Ensure that the mould is clean by cleaning the mold grooves/vents after each shot PC6. Assemble the mould properly on the platten PC7. Load the mould on the press for preheating PC8. Set parameters for the press (cycle time, temperature and ram pressure) , as per company's SOP PC9. Apply the mould release agent appropriately as per SOP PC10. Keep all the accessories like cleaning brush, mould release lever (made of brass or aluminum flat), including mould releasing agent ready
Raw material appropriateness	PC11. Ensure that rubber compound to be fed is approved by laboratory PC12. Match the batch code of each rubber compound with the batch code on the job schedule given by the planning department PC13. Cut the rubber compound as per desired specification(shape, size and weight) PC14. Weigh the blank pieces and ensure that they meet the requirement PC15. Ensure, by visual inspection, that rubber compound is of desired quality (free of contamination) PC16. Ensure availability of clean and treated metallic components wherever required for metal to rubber bonded products.

Health & Safety	PC17. Use lifting equipment such as forklift / Trolleys while lifting heavy materials such as moulds to avoid physical injury. PC18. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning PC19. Ensure that signage indicating hot surfaces is put up wherever necessary PC20. Adhere to all safety norms (like wearing protective gloves, shoes) PC21. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP
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 moulding operation KA2. Different types of mould release agents KA3. Implications of poorly prepared equipment, power failure KA4. Importance of identifying non-conforming material and storage of the same KA5. Risk and impact of not following defined procedures/work instructions KA6. Escalation matrix for reporting identified problems KA7. Types of documentation in organization and importance of the same KA8. Records to be maintained and implications of non-maintenance of the same KA9. Importance of housekeeping and good shop floor practices (knowledge of 3S & 5S) KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable KA11. Personal protection(Which protective equipment to be used and how) KA12. Impact of poor practices on health, safety and environment KA13. Potential hazards and actions to minimize the same KA14. Escalation matrix and escalation procedure for reporting hazards KA15. Importance of FIFO KA16. The usage of different fire extinguisher KA17. Impact of various practices on cost, quality, productivity, delivery and safety KA18. 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. Different types of curing press KB2. Possible causes of common moulding problems & their remedies KB3. Different types of Transfer moulds and function of their various components (plunger, transfer pot, sprue, mould cavity, flash pad etc.) KB4. Health hazards of process KB5. Different heating media (Steam, Electrical, Thermic Fluid) KB6. Correlation of steam pressure and temperature) KB7. Knowledge of influence of parameters (e.g. time, temperature, pressure) on moulding operation KB8. Functioning of different types of steam traps

	KB9. Use of mould release agents KB10. Type of defects/problems leading to rejections, indicators, reasons and possible solutions. KB11. Cleanliness and safety requirements for commencing a moulding batch operation KB12. Units of measurement KB13. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster KB14. Appropriate batch size w.r.t appropriate machinery KB15. Use of weighing scale, time, temperature & pressure measurement
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 SA3. Write simple letters, mails, etc 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
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an

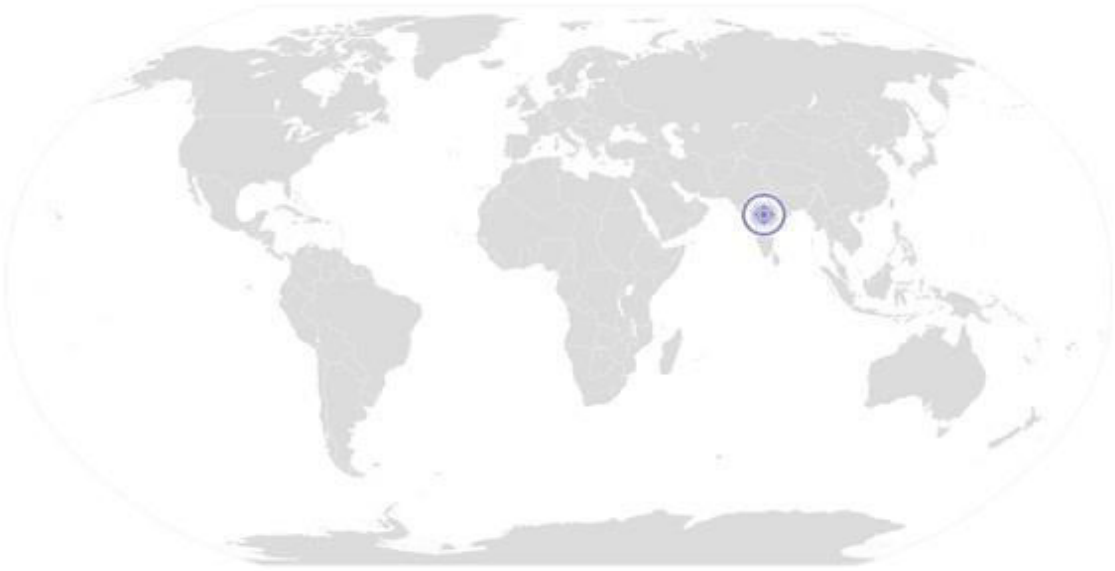
	appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods. SB2. Handle moulding machine SB3. Assemble/load mould on the plate SB4. Handle rubber compound SB5. Handle chemicals SB6. The 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: S7. seek clarification on problems from others SB8. apply problem-solving approaches in different situations SB9. refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB 10. Interpret quality for sheet SB 11. Suggest improvements(if any) in process/product/materials based on results and experience

	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB12. Proper collection of waste material SB13. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience SB14. Diagnose common problems in the machine based on visual inspection, sound , temperature etc SB15. Suggest improvements(if any) in process based on experience
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB16. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB17. apply problem-solving approaches in different situations SB18. refer anomalies to the line manager



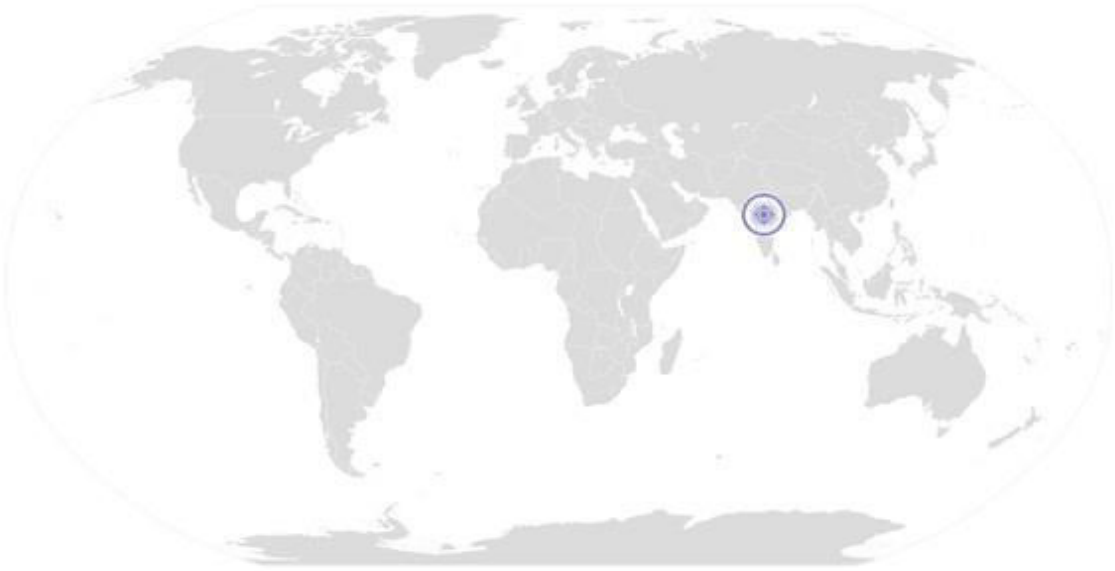
NOS Version Control

NOS Code	**RSC / N 0601**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**20/03/13**
Industry Sub-sector	**Tyre and Non -Tyre**	**Last reviewed on**	**29/12/15**
Occupation	**Moulding/Curing**	**Next review date**	**29/12/17**



Back to QP

National Occupational Standard



Overview

This unit is about performing transfer moulding operation to make rubber products

National Occupational Standard

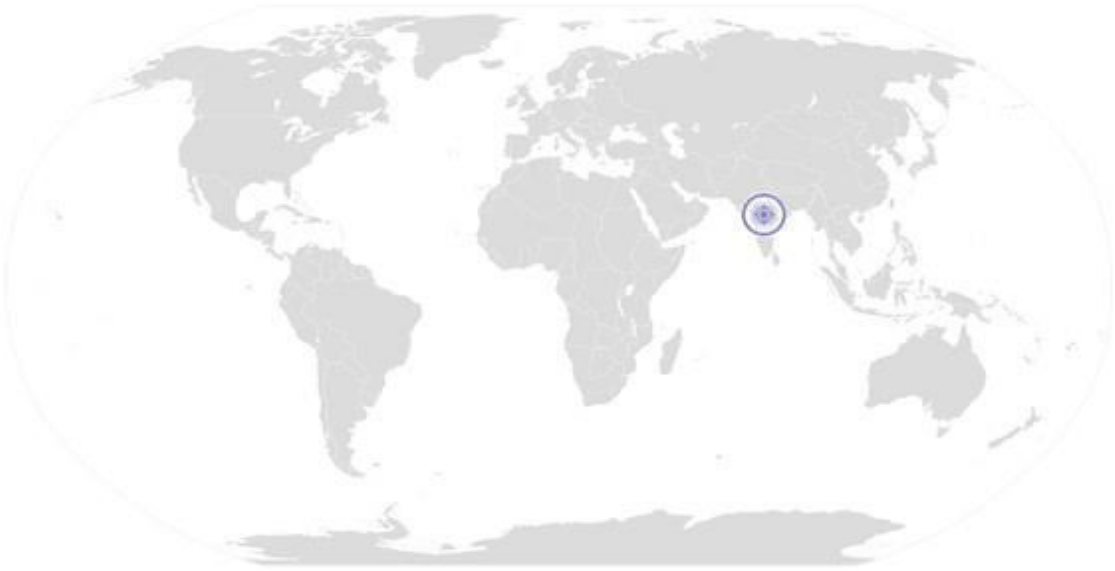
Unit Code	RSC / N 0602
Unit Title (Task)	Perform transfer moulding operation
Description	This unit is about performing transfer moulding operation
Scope	This unit/task covers the following: • Ensuring housekeeping and safety in the moulding area • Operate the machine • Feed rubber compound and other materials into the machine • Does not cover blown/expanded products
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Raw material appropriateness	To be competent, the user/individual on the job must be able to : PC1. Handle the rubber compound to avoid contamination
Operation	PC2. Load the material in the correct pattern as per SOP to minimize material overflow/ wastage/ excess flash PC3. Feed the specified compound into the transfer pot PC4. Place the clean and treated metallic components if required on the mould cavity as per SOP. PC5. Transfer the compound through sprue to the mould cavity PC6. Immediately remove any excess material flow out of the transfer pot PC7. Ensure that moulding pressure and temperature is maintained during the curing cycle PC8. Cure the product as per SOP
Health & Safety	PC9. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning PC10. Adhere to all other safety norms (like wearing shoes, gloves, safety glasses) PC11. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its	The user/individual on the job needs to know and understand: KA1. Different types of batches that are run in plant KA2. Transfer moulding operation to get minimum rejection KA3. Moulding process and effect of the same KA4. Types of heating processes (steam, electrical, thermic fluid) KA5. Implications of poorly prepared material, power failure KA6. Material disposal procedure, importance of appropriate disposal of

processes)	material and implications of not following the material disposal procedure KA7. Quality and damage checks to be done and importance of the same KA8. Importance of identifying non-conforming products and storage of the same KA9. Risk and impact of not following defined procedures/work instructions KA10. Escalation matrix for reporting identified issues KA11. Types of documentation in organization and importance of the same KA12. Records to be maintained and implications of non-maintenance of the same KA13. Importance of housekeeping and good shop floor practices (knowledge of 3S & 5S) KA14. Health, Safety and Environment guidelines, legislation and regulations as applicable KA15. Personal protection(Which protective equipment to be used and how) KA16. Impact of poor practices on health, safety and environment KA17. Potential hazards and actions to minimize the same KA18. Escalation matrix and escalation procedure for reporting hazards KA19. Importance of FIFO KA20. The usage of fire extinguisher KA21. Impact of various practices on cost, quality, productivity, delivery and safety KA22. 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. Different types of curing press KB2. Possible causes of common moulding problems & their remedies KB3. Different types of Transfer moulds and function of their various components (plunger, transfer pot, sprue, mould cavity, flash pad etc.) KB4. Different heating media (Steam, Electrical, Thermic Fluid) KB5. Cleanliness and safety requirements for operating a moulding machine KB6. Knowledge of influence of parameters (e.g. time, temperature, pressure) on moulding operation KB7. Operation of moulding machine (Equipment working, possible setting levels, typical process followed for different batches) KB8. Operation of multiple presses with common power pack and importance of sequencing KB9. Specific pressure required for different types of moulding KB10. Influence of time and temperature on curing of thick products KB11. State of curing – undercuring and overcuring KB12. Effect of improper processing on properties of rubber compound & product KB13. Type of defects/problems leading to rejections, indicators, reasons and possible solutions.

	KB14. Units of measurement KB15. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster KB16. Appropriate batch size with respect to appropriate machinery KB17. Use of weighing scale, time, temperature & pressure measurement
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 SA3. Write simple letters, mails, etc 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
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.

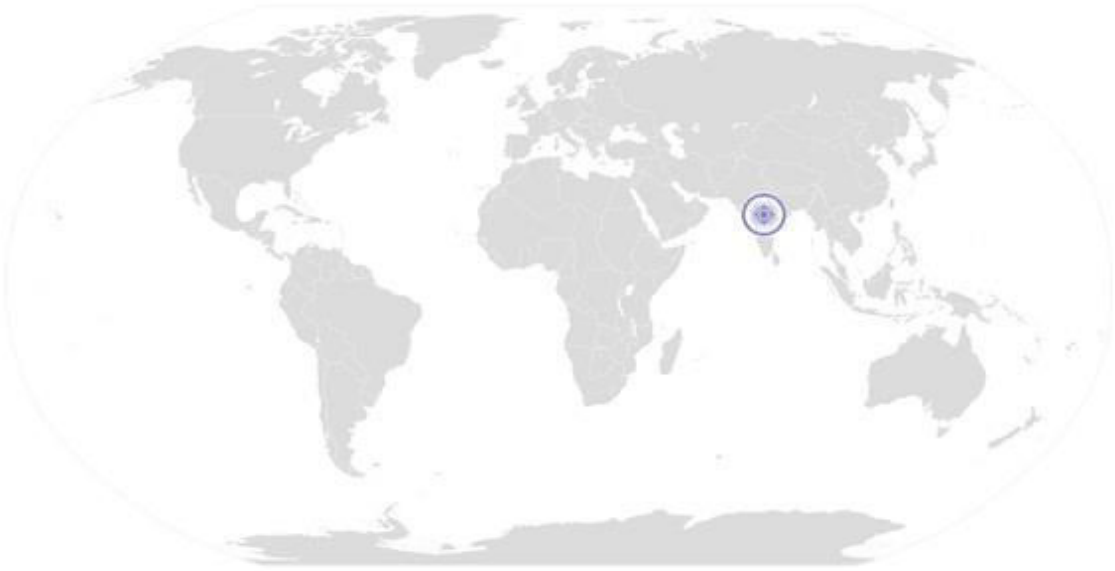
	SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods. SB2. Handle moulding machine SB3. Assemble/load mould on the plate SB4. Handle rubber compound SB5. Handle chemicals SB6. The 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: S7. seek clarification on problems from others SB8. apply problem-solving approaches in different situations SB9. refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB 10. Interpret quality for sheet SB 11. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB12. Proper collection of waste material SB13. Identify defects in the material and communicate it at the earliest and

	suggest improvements(if any) in process/material based on experience SB14. Diagnose common problems in the machine based on visual inspection, sound , temperature etc SB15. Suggest improvements(if any) in process based on experience
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB16. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB17. apply problem-solving approaches in different situations SB18. refer anomalies to the line manager



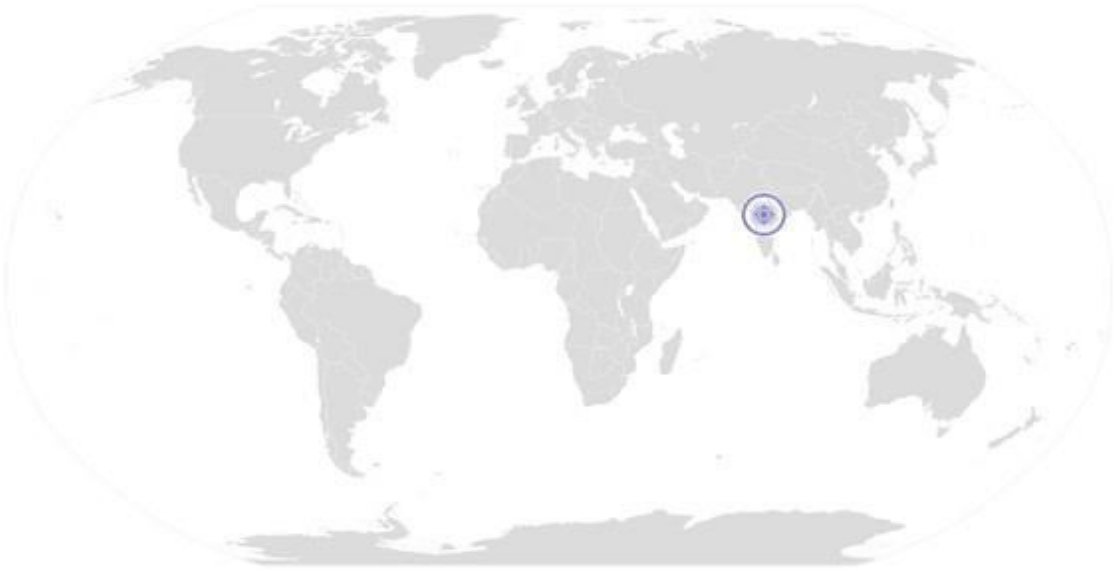
NOS Version Control

NOS Code	**RSC / N 0602**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**20/03/13**
Industry Sub-sector	**Tyre and Non -Tyre**	**Last reviewed on**	**29/12/15**
Occupation	**Moulding/Curing**	**Next review date**	**29/12/17**



Back to QP

National Occupational Standard



Overview

This unit is about undertaking activities post transfer moulding operation to make rubber products

National Occupational Standard

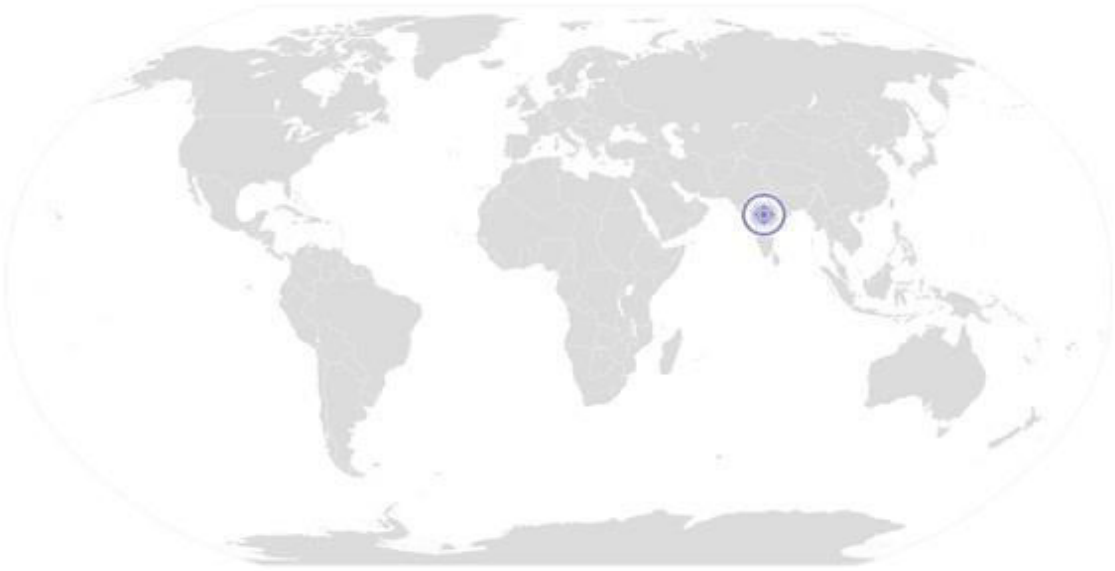
Unit Code	RSC / N 0603
Unit Title (Task)	Undertake post transfer moulding activities
Description	This unit is about undertaking activities after performing moulding operation
Scope	This unit/task covers the following: • Ensuring housekeeping and safety in the moulding area • Remove cured piece • Trim the piece to remove flash • Form appropriate batches of the product • Mark the batch for proper identification for further processing • Send sample to lab for testing
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Operation	To be competent, the user/individual on the job must be able to PC1. Remove cured product properly as per SOP PC2. Remove the cured compound from the pot/ flow grooves and ensure clean mould for next cycle PC3. Trim the piece to remove flash in a manner that does not cause injury to the operator or the product PC4. Ensure finishing operation including surface treatment of the cured product if required as per SOP before sending to inspection/warehouse.
Material disposal	PC5. Dispose waste material in safe manner as per company's SOP
Batch Marking	PC6. Ensure identification and traceability by batch marking/ coding for the right product as per instructions laid down by the company (in terms of batch number, colour, date stamp)
Sampling	PC7. Send sample of specified compound/ batch in specified form to lab for testing PC8. Send the remaining material to the designated storage area
Health & Safety	PC9. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning PC10. Adhere to all safety norms (like wearing protective gloves, shoes, safety glasses) PC11. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP

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. Implications of poorly prepared material, power failure KA2. Use of instruments to check dimensions KA3. Significance of batch marking KA4. Importance of identifying non-conforming product and storage of the same KA5. Risk and impact of not following defined procedures/work instructions KA6. Escalation matrix and procedure for reporting identified problems KA7. Types of documentation in organization and importance of the same KA8. Records to be maintained and implications of non-maintenance of the same KA9. Importance of housekeeping and good shop floor practices (knowledge of 3S & 5S) KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable KA11. Personal protection(Which protective equipment to be used and how) KA12. Potential hazards and actions to minimize the same KA13. Impact of poor practices on health, safety and environment KA14. Escalation matrix and procedure for reporting hazards KA15. 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. Different types of curing press KB2. Possible causes of common moulding problems & their remedies KB3. Different types of Transfer moulds and function of their various components (plunger, transfer pot, sprue, mould cavity, flash pad etc.) KB4. Different heating media (Steam, Electrical, Thermic Fluid) KB5. Mould fouling and remedial measures KB6. Loading/unloading mechanisms and aids KB7. State of curing – undercuring and overcuring KB8. The process and importance of quality check, including visual, hardness and dimension check KB9. Cleanliness and safety requirements for deflashing KB10. Type of defects/problems leading to rejections, indicators, reasons and possible solutions. KB11. Units of measurement KB12. Coding systems for identification and traceability KB13. Knowledge of weighing scales, time, temperature & pressure measurement KB14. Knowledge of storage life of the compound, knowledge of ambient temperature and effect on compound

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 SA3. Write simple letters, mails, etc 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
	Reading Skills The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations

	SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods. SB2. Handle moulding machine SB3. Assemble/load mould on the plate SB4. Handle rubber compound SB5. Handle chemicals SB6. The 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: S7. seek clarification on problems from others SB8. apply problem-solving approaches in different situations SB9. refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB 10. Interpret quality for sheet SB 11. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB12. Proper collection of waste material SB13. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience SB14. Diagnose common problems in the machine based on visual inspection, sound , temperature etc SB15. Suggest improvements(if any) in process based on experience
	Critical Thinking

	The user/individual on the job needs to know and understand how to: SB16. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB17. apply problem-solving approaches in different situations SB18. refer anomalies to the line manager

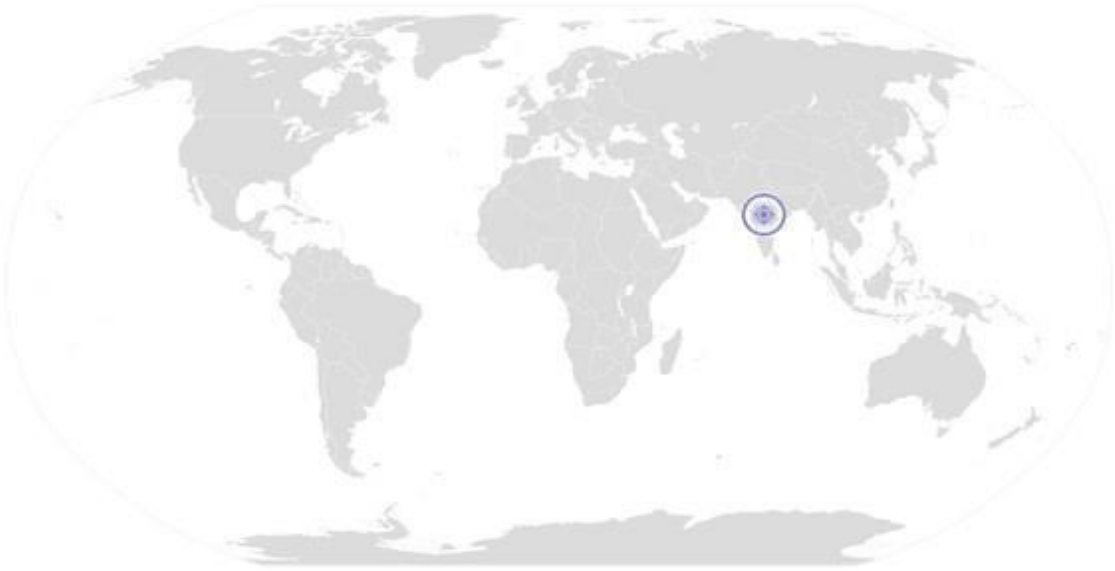


NOS Version Control

NOS Code	**RSC / N 0603**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**20/03/13**
Industry Sub-sector	**Tyre and Non -Tyre**	**Last reviewed on**	**29/12/15**
Occupation	**Moulding/Curing**	**Next review date**	**29/12/17**

Back to QP

National Occupational Standard



Overview

This unit is about carrying out housekeeping

National Occupational Standard

Unit Code	RSC / N 5001
Unit Title (Task)	To carry out housekeeping
Description	This unit is about carrying out housekeeping activities
Scope	This unit/task covers the following: • Preparing for housekeeping activities • Carry out housekeeping activities • Post housekeeping activities
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Pre housekeeping activities	To be competent, the user/individual on the job must be able to: PC1. Inspect the area while taking into account various surfaces PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain PC3. Ensure that the cleaning equipment is in proper working condition PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces PC6. Inform the affected people about the cleaning activity PC7. Display the appropriate signage for the work being conducted PC8. Ensure that there is adequate ventilation for the work being carried out PC9. Wear the personal protective equipment required for the cleaning method and materials being used
Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface PC11. Carry out cleaning activity without disturbing others PC12. Deal with accidental damage, if any, caused while carrying out the work PC13. Report to the appropriate person any difficulties in carrying out your work PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill
Post housekeeping activities	PC15. Ensure that there is no oily substance on the floor to avoid slippage PC16. Ensure that no scrap material is lying around PC17. Maintain and store housekeeping equipment and supplies PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements

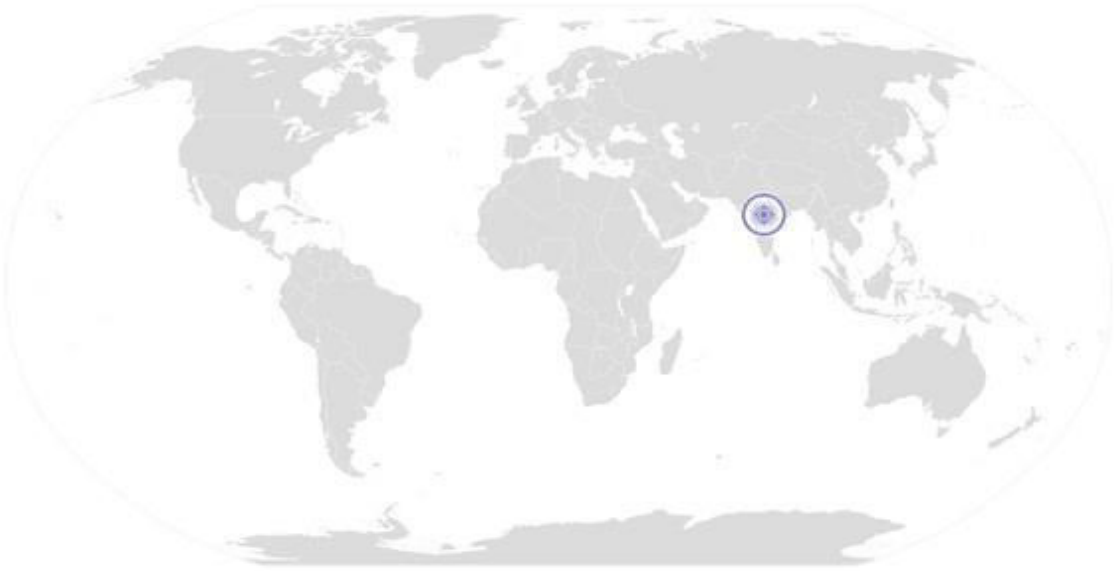
	PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored PC21. Dispose the waste garnered from the activity in an appropriate manner PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly
General	PC23. Maintain schedules and records for housekeeping duty PC24. Replenish any necessary supplies or consumables
Knowledge and Understanding (K)	
B.Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work KB2. How to inspect a work area to decide what cleaning it needs KB3. Methods and materials that used for cleaning variety of surfaces KB4. The types of cleansing agents that are not to be mixed together KB5. The correct method for cleaning equipment and/or machinery used during your work KB6. The importance of personal protective equipment KB7. Appropriate personal protective equipment for the work area,cleaning equipment, tools, materials and chemicals used KB8. The correct sequence for cleaning the work area KB9. The time taken by the treatment to work KB10. The importance of following manufacturer's instructions on cleaning agents KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments KB12. The importance of applying treatments evenly and the effect of not doing this KB13. Process of cleaning the surfaces without causing injury or damage KB14. The method to check the treated surface and equipment on completion of cleaning KB15. Procedures for reporting any unidentified soiling KB16. Procedures for disposing off waste KB17. Procedures for disposing off or storing personal protective equipment KB18. Escalation procedures for soils or stains that could not be removed
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 SA3. Write simple letters, mails, etc 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
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality

	and availability of raw materials and finished goods.
	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: SB 5. Interpret quality for sheet SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	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
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager

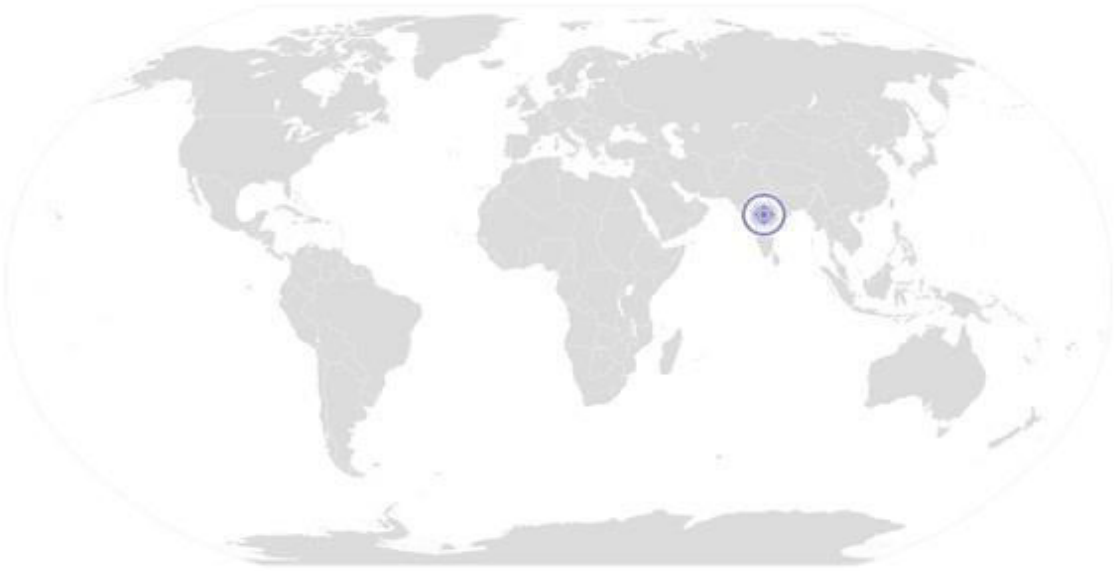
NOS Version Control

NOS Code	**RSC / N 5001**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**20/03/13**
Industry Sub-sector	**Tyre and Non -Tyre**	**Last reviewed on**	**29/12/15**
Occupation	**Moulding/Curing**	**Next review date**	**29/12/17**



Back to QP

National Occupational Standard



Overview

This unit is about reporting and documentation

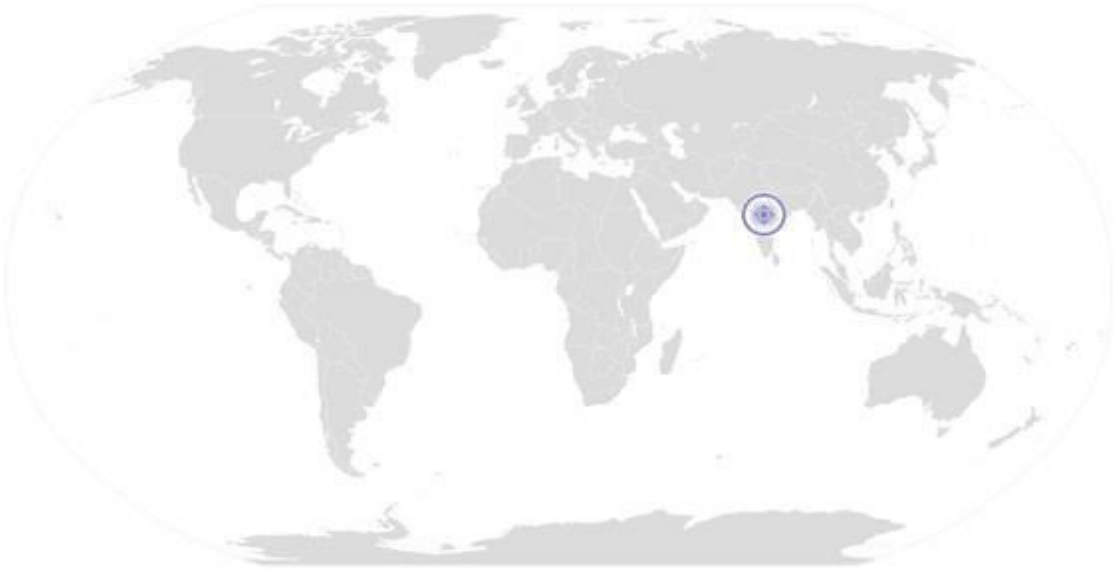
National Occupational Standard

Unit Code	RSC / N 5002
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: • 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 applicable in a timely manner PC2. Report to the appropriate authority as laid down by the company PC3. Follow reporting procedures as prescribed by the company
Recording and Documentation	PC4. Identify documentation to be completed relating to one's role PC5. Record details accurately an appropriate format PC6. Complete all documentation within stipulated time according to company procedure PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly PC8. Make sure documents are available to all appropriate authorities to inspect
Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures PC10. 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: KA1. Different methods of recording information KA2. Various documents that need to be maintained KA3. Company procedure for filling/maintaining up the documents KA4. Procedures for reporting to the appropriate authority KA5. Procedures for recording damage, breakages etc KA6. Reporting incidents where standard operating procedures are not followed KA7. The importance of complete and accurate documentation KA8. How to maintain complete documentation accurately and within agreed

	timescales KA9. The importance of ensuring that the documents are correct KA10. The actions to be taken if the documents are not correct KA11. The importance of maintaining the security and confidentiality of recorded information KA12. Procedures to maintain confidentiality of information KA13. The appropriate method for responding to requests for information KA14. The reporting procedures to followed before disclosing information to any outside party
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 SA3. Write simple letters, mails, etc 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
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment

	SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.
	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: SB 5. Interpret quality for sheet SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	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
	Critical Thinking
	The user/individual on the job needs to know and understand how to:

	SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager

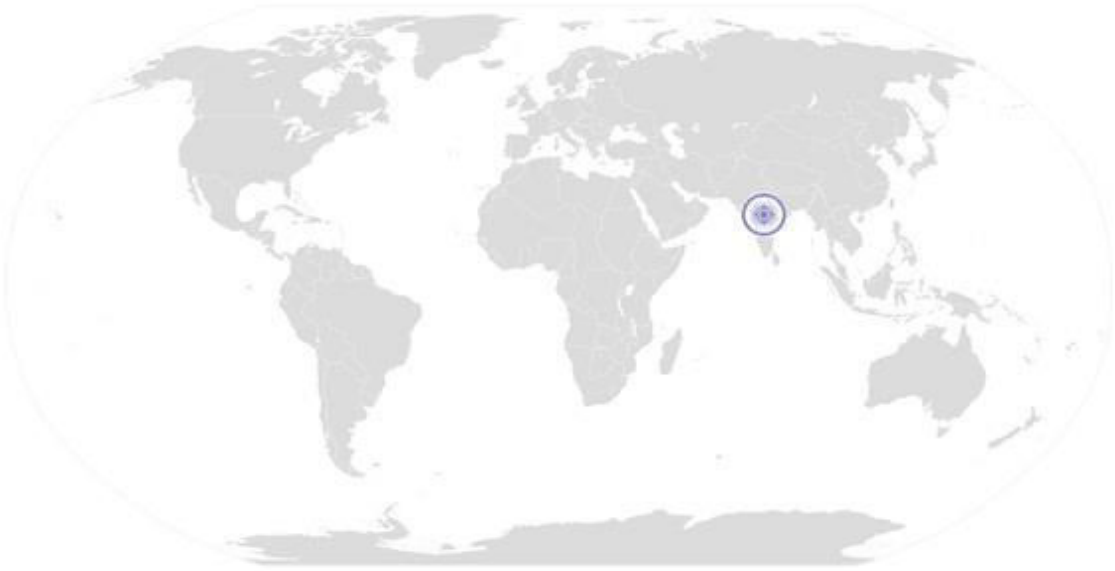


NOS Version Control

NOS Code	RSC / N 5002		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	20/03/13
Industry Sub-sector	Tyre and Non -Tyre	Last reviewed on	29/12/15
Occupation	Moulding/Curing	Next review date	29/12/17

Back to QP

National Occupational Standard



Overview

This unit is about carrying out quality checks

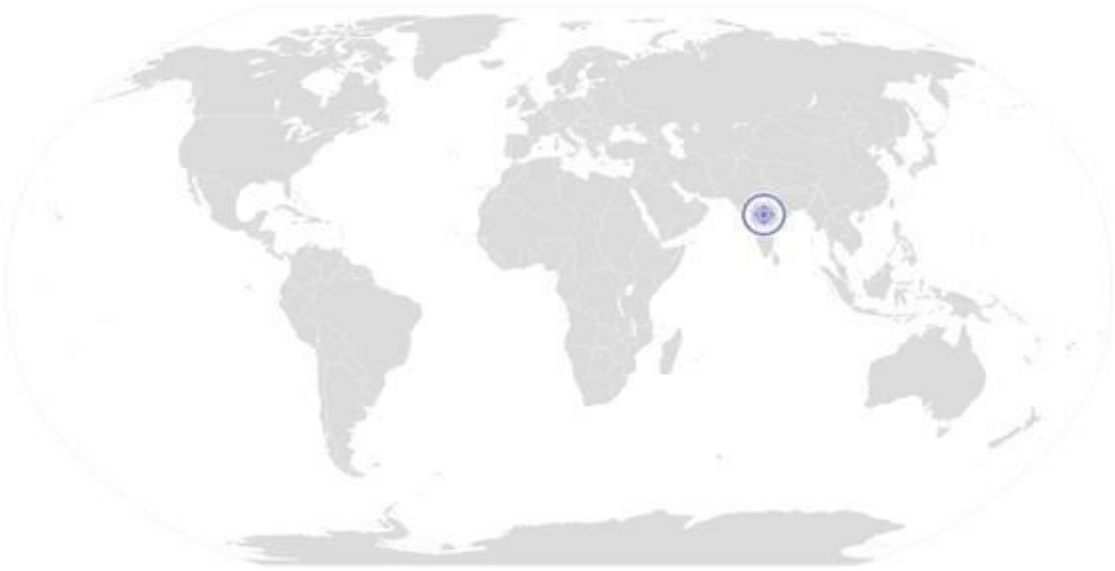
National Occupational Standard

Unit Code	RSC / N 5003
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: • Carrying out quality checks to identify problems • 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 are regularly and consistently performed PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as 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 company standards PC6. Evaluating the need for action to ensure that problems do not recur 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 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 KB6. Use of suitable equipment KB7. Availability and use of monitoring and measuring devices, KB8. Requirements of records KB9. Importance of maintaining accurate up-to-date records KB10. The need to report within the stipulated time KB11. Implications of inaccurate measuring and testing instruments and equipment KB12. The cost of non-conformance to quality standards KB13. Implications (impact on internal/external customers) of defective products, materials or components
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 SA3. Write simple letters, mails, etc 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
	Reading Skills The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time

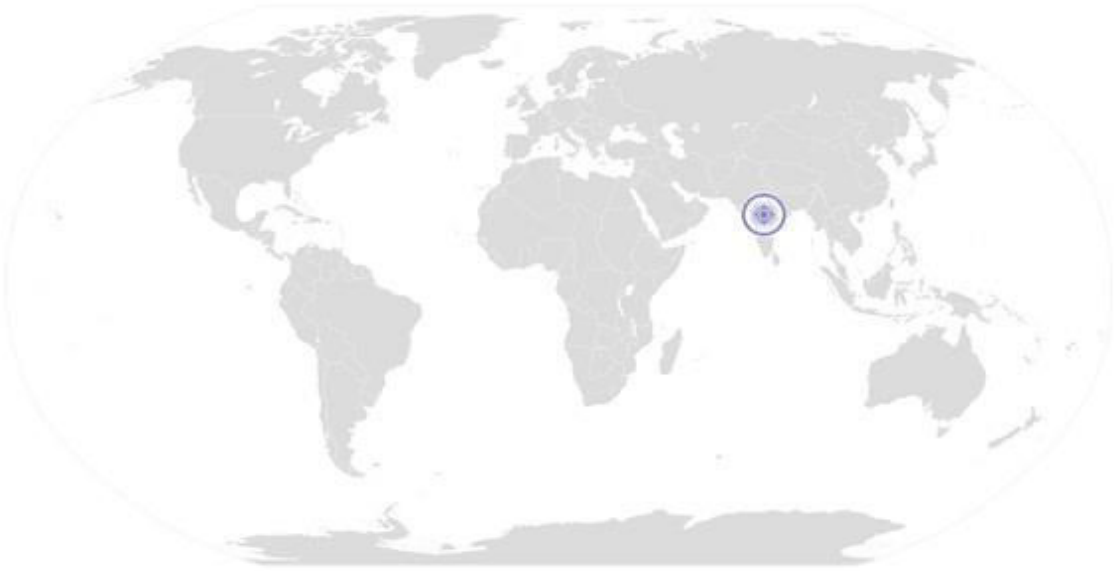
	SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.
	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: SB 5. Interpret quality for sheet SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	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
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager



NOS Version Control

NOS Code	RSC / N 5003		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	20/03/13
Industry Sub-sector	Tyre and Non –Tyre	Last reviewed on	29/12/15
Occupation	Moulding/Curing	Next review date	29/12/17



Back to QP

National Occupational Standard

Overview

This unit is about problem identification and escalation

Unit Code	RSC / N 5004
Unit Title (Task)	To carry out problem identification and escalation
Description	This unit is about problem identification and escalation
Scope	This unit/task covers the following: • Identify problems across: - Raw materials - Compounds - Product - Equipment - Others • Identify solutions to problems • Take corrective action • Escalation of unresolved identified problems

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Problem Identification	To be competent, the user/individual on the job must be able to: PC1. Identify defects/indicators of problems PC2. Identify any wrong practices that may lead to problems PC3. Identify practices that may impact the final product quality PC4. Identify if the problem has occurred before PC5. Identify other operations that might be impacted by the problem PC6. Ensure that no delays are caused as a result of failure to escalate problems
Necessary Action	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required) PC8. Consider possible reasons for identification of problems PC9. Consider applicable corrections and formulate corrective action PC10. Formulate action in a timely manner PC11. Communicate problem/remedial action to appropriate parties PC12. Take corrective action in a timely manner PC13. Take corrective action for problems identified according to the company procedures PC14. Report/document problem and corrective action in an appropriate manner PC15. Monitor corrective action PC16. Evaluate implementation of corrective action taken to determine if the

	problem has been resolved PC17. Ensure that corrective action selected is viable and practical PC18. Ensure that correct solution is identified to an identified problem PC19. Take corrective action for problems identified according to the company procedures PC20. Ensure that no delays are caused as a result of failure to take necessary action
Problem Escalation	PC21. Escalate problem as per laid down escalation matrix PC22. Escalate the problem within stipulated time PC23. Escalate the problem in an appropriate manner PC24. Ensure that no delays are caused as a result of failure to escalate problems
Knowledge and Understanding (K)	
B.Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Indicators of problems KB2. The working of the equipment and accessories(if applicable) KB3. The impact of operations on the user and equipment(if applicable) KB4. The impact of operations on the final product (if applicable) KB5. The effect of not rectifying the problems identified KB6. The reason for the occurrence of previous problems KB7. Measures and steps that have been taken to address the previous problems KB8. Possible solutions for various problems KB9. The correct method for carrying out corrective actions outlined for each problem KB10. The impact of not carrying out the corrective actions KB11. The documentation procedure for recording such problems, as per company norms KB12. The escalation matrix for reporting problems KB13. Escalation matrix for reporting unresolved problems KB14. The time frame within which in which each problem needs to be escalated KB15. Manner in which each problem needs to be escalated
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 SA3. Write simple letters, mails, etc 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
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. 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: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme) SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B.Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.

	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: SB 5. Interpret quality for sheet SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	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
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager

NOS Version Control

NOS Code	RSC / N 5004		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	20/03/13
Industry Sub-sector	Tyre and Non -Tyre	Last reviewed on	29/12/15
Occupation	Moulding/Curing	Next review date	29/12/17

Back to QP

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Transfer Moulding Operator
Qualification Pack Code: RSC/ Q 0206
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 lay down 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 center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center 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

Assessment Strategy			Marks Allocation		
NOS	**Elements**	**Performance Criteria**	**Total**	**Theory**	**Practical**
1. RSC / N 0601 Prepare Transfer Moulding Machine	Equipment readiness	PC1. Ensure that transfer moulding equipment is clean and fit for use as per SOP	6	4	2
		PC2. Ensure emergency safety feature of machine is working	6	4	2
		PC3. Precheck the hydraulic machine before starting actual moulding process to see if there is any malignancy.	6	4	2
		PC4. Select the correct mould	7	4	3
		PC5. Ensure that the mould is clean by cleaning the mold grooves/vents after each shot	7	4	3
		PC6. Assemble the mould properly on the platten	7	4	3
		PC7. Load the mould on the press for preheating	7	4	3
		PC8. Set parameters for the press (cycle time, temperature and ram pressure) , as per company's SOP	7	4	3
		PC9. Apply the mould release agent appropriately as per SOP	7	4	3
		PC10. Keep all the accessories like cleaning brush, mould release lever (made of brass or aluminum flat), including mould releasing agent ready	7	4	3

	Raw material appropriateness	PC11. Ensure that rubber compound to be fed is approved by laboratory	4	2	2
		PC12. Match the batch code of each rubber compound with the batch code on the job schedule given by the planning department	4	2	2
		PC13. Cut the rubber compound as per desired specification(shape, size and weight)	4	2	2
		PC14. Weigh the blank pieces and ensure that they meet the requirement	4	2	2
		PC15. Ensure, by visual inspection, that rubber compound is of desired quality (free of contamination)	2	2	0
		PC16. Ensure availability of clean and treated metallic components wherever required for metal to rubber bonded products.	2	2	0
	Health & Safety	PC17. Use lifting equipment such as forklift / Trolleys while lifting heavy materials such as moulds to avoid physical injury.	3	2	1
		PC18. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning	3	2	1
		PC19. Ensure that signage indicating hot surfaces is put up wherever necessary	3	2	1
		PC20. Adhere to all safety norms (like wearing protective gloves, shoes)	2	1	1
		PC21. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP	2	1	1
			100	60	40
2. RSC / N 0602 Perform Transfer Moulding Operation	Raw material appropriateness	PC1. Handle the rubber compound to avoid contamination	6	2	4
	Operation	PC2. Load the material in the correct pattern as per SOP to minimize material overflow/ wastage/ excess flash	10	6	4
		PC3. Feed the specified compound into the transfer pot	10	6	4
		PC4. Place the clean and treated metallic components if required on the mould cavity as per SOP.	13	6	7
		PC5. Transfer the compound through sprue to the mould cavity	13	6	7
		PC6. Immediately remove any excess material flow out of the transfer pot	13	6	7
		PC7. Ensure that moulding pressure and temperature is maintained during the curing	13	6	7

		cycle			
		PC8. Cure the product as per SOP	13	6	7
	Health & Safety	PC9. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning	3	2	1
		PC10. Adhere to all other safety norms (like wearing shoes, gloves, safety glasses)	3	2	1
		PC11. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP	3	2	1
			100	50	50
3. RSC / N 0603 Undertake Post Transfer Moulding Activities	Operation	PC1. Remove cured product properly as per SOP	15	5	10
		PC2. Remove the cured compound from the pot/ flow grooves and ensure clean mould for next cycle	15	5	10
		PC3. Trim the piece to remove flash in a manner that does not cause injury to the operator or the product	15	5	10
		PC4. Ensure finishing operation including surface treatment of the cured product if required as per SOP before sending to inspection/warehouse.	15	5	10
	Material disposal	PC5. Dispose waste material in safe manner as per company's SOP	6	3	3
	Batch Marking	PC6. Ensure identification and traceability by batch marking/ coding for the right product as per instructions laid down by the company (in terms of batch number, colour, date stamp)	5	5	0
	Sampling	PC7. Send sample of specified compound/ batch in specified form to lab for testing	5	5	0
		PC8. Send the remaining material to the designated storage area	5	5	0
	Health & Safety	PC9. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning	7	4	3
		PC10. Adhere to all safety norms (like wearing protective gloves, shoes, safety glasses)	6	4	2
		PC11. Comply with health, safety, environment guidelines, regulations in accordance with international/national standards or organizational SOP	6	4	2
			100	50	50
4. RSC / N 5001 To	Pre housekeepin	PC1. Inspect the area while taking into account various surfaces	3	3	0

Carry Out Housekeeping	g activities	PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain	3	3	0
		PC3. Ensure that the cleaning equipment is in proper working condition	3	3	0
		PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person	3	3	0
		PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces	3	3	0
		PC6. Inform the affected people about the cleaning activity	2	2	0
		PC7. Display the appropriate signage for the work being conducted	3	3	0
		PC8. Ensure that there is adequate ventilation for the work being carried out	3	3	0
		PC9. Wear the personal protective equipment required for the cleaning method and materials being used	3	3	0
	Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface	3	3	0
		PC11. Carry out cleaning activity without disturbing others	3	3	0
		PC12. Deal with accidental damage, if any, caused while carrying out the work	3	3	0
		PC13. Report to the appropriate person any difficulties in carrying out your work	3	3	0
		PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill	3	3	0
	Post housekeeping activities	PC15. Ensure that there is no oily substance on the floor to avoid slippage	9	3	6
		PC16. Ensure that no scrap material is lying around	9	3	6
		PC17. Maintain and store housekeeping equipment and supplies	3	3	0
		PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process	3	3	0
		PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements	8	2	6
		PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored	3	3	0

		PC21. Dispose the waste garnered from the activity in an appropriate manner	9	3	6
		PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly	9	3	6
	General	PC23. Maintain schedules and records for housekeeping duty	3	3	0
		PC24. Replenish any necessary supplies or consumables	3	3	0
			100	70	30
5. RSC / N 5002 To Carry Out Reporting And Documentation	Reporting	PC1. Report data/problems/incidents as applicable in a timely manner	12	8	4
		PC2. Report to the appropriate authority as laid down by the company	12	8	4
		PC3. Follow reporting procedures as prescribed by the company	12	8	4
	Recording and Documentation	PC4. Identify documentation to be completed relating to one's role	10	6	4
		PC5. Record details accurately an appropriate format	16	6	10
		PC6. Complete all documentation within stipulated time according to company procedure	14	4	10
		PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly	6	4	2
		PC8. Make sure documents are available to all appropriate authorities to inspect	6	4	2
	Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures	6	6	0
		PC10. Inform the appropriate authority of requests for information received	6	6	0
			100	60	40
6. RSC / N 5003 To Carry Out Quality Checks	Inspection	PC1. Ensure that total range of checks are regularly and consistently performed	24	10	14
		PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required	24	10	14
	Analysis	PC3. Identify non-conformities to quality assurance standards	6	4	2
		PC4. Identify potential causes of non-conformities to quality assurance standards	5	3	2
		PC5. Identify impact on final product due to non-conformance to company standards	5	3	2
		PC6. Evaluating the need for action to ensure that problems do not recur	6	4	2

		PC7. Suggest corrective action to address problem	5	3	2
		PC8. Review effectiveness of corrective action	5	3	2
	Reporting	PC9. Interpret the results of the quality check correctly	4	4	0
		PC10. Take up results of the findings with QC in charge/appropriate authority.	3	3	0
		PC11. Take up the results of the findings within stipulated time	3	3	0
		PC12. Record of results of action taken	3	3	0
		PC13. Record adjustments not covered by established procedures for future reference	3	3	0
		PC14. Review effectiveness of action taken	2	2	0
		PC15. Follow reporting procedures where the cause of defect cannot be identified	2	2	0
			100	60	40
7. RSC / N 5004 To Carry Out Problem Identification And Escalation	Problem Identification	PC1. Identify defects/indicators of problems	7	4	3
		PC2. Identify any wrong practices that may lead to problems	6	3	3
		PC3. Identify practices that may impact the final product quality	6	3	3
		PC4. Identify if the problem has occurred before	5	3	2
		PC5. Identify other operations that might be impacted by the problem	6	4	2
		PC6. Ensure that no delays are caused as a result of failure to escalate problems	5	3	2
	Necessary Action	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)	8	5	3
		PC8. Consider possible reasons for identification of problems	8	5	3
		PC9. Consider applicable corrections and formulate corrective action	3	3	0
		PC10. Formulate action in a timely manner	3	3	0
		PC11. Communicate problem/remedial action to appropriate parties	7	5	2
		PC12. Take corrective action in a timely manner	2	2	0
		PC13. Take corrective action for problems identified according to the company procedures	2	2	0
		PC14. Report/document problem and corrective action in an appropriate manner	8	5	3
		PC15. Monitor corrective action	2	2	0
		PC16. Evaluate implementation of corrective	2	2	0

		action taken to determine if the problem has been resolved			
		PC17. Ensure that corrective action selected is viable and practical	2	2	0
		PC18. Ensure that correct solution is identified to an identified problem	2	2	0
		PC19. Take corrective action for problems identified according to the company procedures	1	1	0
		PC20. Ensure that no delays are caused as a result of failure to take necessary action	1	1	0
	Problem Escalation	PC21. Escalate problem as per laid down escalation matrix	4	3	1
		PC22. Escalate the problem within stipulated time	4	3	1
		PC23. Escalate the problem in an appropriate manner	3	2	1
		PC24. Ensure that no delays are caused as a result of failure to escalate problems	3	2	1
			100	70	30