

Model Curriculum

Pre & Post Tyre Moulding Operator (Option: Post cure inflation)

SECTOR: RUBBER INDUSTRY
SUB-SECTOR: Tyre
OCCUPATION: Moulding / Curing
REF ID: RSC/Q2209, V2.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO
QUALIFICATION PACK - NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

RUBBER SKILL DEVELOPMENT COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of


Job Role/ Qualification Pack: **'Pre & Post Tyre Moulding Operator (Option: Post cure inflation)'**

QP No. **'RSC/Q2209 NSQF Level 4'**

Date of Issuance: December 23, 2017

Valid up to: December 22, 2022

**Valid up to the next review date of the Qualification Pack*



Authorised Signatory
(Rubber Skill Development Council)

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Pre & Post Tyre Moulding Operator (Options: Post cure inflation)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Pre & Post Tyre Moulding Operator (Options: Post cure inflation),” in the “Rubber” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Pre & Post Tyre Moulding Operator (Options: Post cure inflation)		
Qualification Pack Name & Reference ID	RSC/Q2209, v2.0		
Version No.	2.0	Version Update Date	02/12/2014
Pre-requisites to Training	VIII th Standard passed		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Prepare tools, equipment, and machine for tyre moulding: Prepare tools and equipment, prepare raw material and machines - splice jamming, awl venting and paint booths/spraying, prepare post cure units with correct Post Curing Inflation (PCI) rings and pressure settings • Carry out tyre pre-cure preparation: Collect raw material, carry out jamming, awl venting and tyre inside/outside painting, shape tyre in shaping machine for airbag type curing, send the prepared tyres for curing operation, ensure housekeeping and safety in the work area, disposal of unused material • Carry out tyre post-cure operation: Place the tyre on correct PCI rings and keep inflation under specified pressure and time with required tools and equipments, remove the tyre from the PCI rings and send them for inspection and final finish operation • Maintain Tyre Moulding Shop as per 5S guideline: Sorting of material available at workplace, placing all things in order, cleaning of area, making standard for cleaning and things to keep, sustaining the level of 5S achieved, identifying cleaning equipment for cleaning, using appropriate Personal Protective Equipment (PPE) while cleaning • Report and document about Tyre moulding: Documenting and reporting various information like – production, inspection, machine status, tyre batch card • Check quality of moulded Tyre and rectify the defects: Visual inspection, tread and tyre dimension measurement, identify moulding defects, take corrective action for eliminating defects • Escalate Problem to right authority: Know the hierarchy of 		

	<p>organisation, know the immediate supervisor, escalation of matters which are beyond job role</p> <ul style="list-style-type: none">• Carry out health and safety: Undertake basic safety checks, risk assessment of hazard involved of chemicals being used at the workplace, risk assessment of material handling, safe disposal of waste, environment protection, reporting accidents and incidents• Carry out post-cure inflation: Carry out post-cure inflation, mount PCI for post-cure inflation, check automatic pressure control and timer controls as per specification, visual inspection of the cured tyre, use correct PCI units, set time cycle for post cure inflation
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This course encompasses 8 out of 8 **Compulsory** NOS (National Occupational Standards), 1 out of 1 **Optional NOS** of “Pre & Post Tyre Moulding Operator (Options: Post cure inflation)” Qualification Pack issued by “Rubber Skill Development Council.”

COMPULSORY NOS:

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction to Rubber & Tyre Industry Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code Bridge Module	<ul style="list-style-type: none"> Explain development history of rubber Describe current industrial scenario of rubber and prospects Identify different sources of rubber Learn about major rubber associations Identify equipment used for Pre & Post Tyre Moulding process Understand roles and responsibilities for Pre & Post Tyre Moulding operator 	Laptop, White board+marker, projector, Black Board+Chalk, Participant Handbook, Samples – RSS sheets, Crepe Rubber, TSR Rubber, Synthetic Rubber, Reclaimed Rubber, Rubber Product – 20 nos., Tyre sample with sidewall coding, Tyre cut sections
2	Prepare tools, equipment, and machine for tyre moulding Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code RSC/N2225	<ul style="list-style-type: none"> Clean the machines and make them ready to use. Arrange the tools required for pre-cure operation. Select and use of correct jammers for the selected tyre size Check awl venting machine (manual or mechanical) for ok operational condition Operate the tyre shaping and airbag insertion machine, in case of tyres cured with airbags Use only approved and laboratory released material (lubricant and paint). Maintain paint /lubricant/cement homogeneity/viscosity/solids and proper dispersion by keeping on agitation 	Laptop, White board+marker, projector, Black Board+Chalk, Participant Handbook, Visit to Tyre Manufacturing Factory, Awl venting machine, Tyre shaping machine, airbag insertion machine, Splice jamming machine, Green Tyre, Release Agent, lubricant, paint, agitator
3	Carry out tyre pre-cure preparation Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code	<ul style="list-style-type: none"> Inspect tyre visually for confirming the desired quality Handle the paints and lubricants properly to avoid contamination Use pre-cure preparation process as per instructions /Standard Operating Procedure (SOP). Load the tyre on splice jamming machine using correct jammers Apply correct jamming cycle on each tyre Inspect jammed tyre for any open 	White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Splice jamming machine, Awl venting machine,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	RSC/N2226	splice joints <ul style="list-style-type: none"> Apply correct lubricant evenly inside the tyre Use awl for awl venting the sidewall area of the tyre Use mechanical awl venting machine Apply specified paint in the side wall area and on the inside of the tyre Spray mold release lubricant in tyre mould before placing the tyre in the tyre press 	Release Agent, lubricant
4	Carry out tyre post cure operation Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code RSC/N2227	<ul style="list-style-type: none"> Keep the hand tools ready for the post cure preparation Verify correct PCI rings availability Set the automatic pressure control and timer controls Operate trolleys, overhead conveyors Carry out post cure preparation process as per instructions /SOP Load the tyres on Manual or auto PCI units Set air pressure correctly as per the technical specifications Select and use the correct PCI rings Set time cycle for post cure inflation Send the tyres to inspection and final finish area by manual rolling, or trolleys or overhead Conveyors 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, PCI units, PCI rings, Cured Tyre
5	Carry out housekeeping in rubber product manufacturing Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code RSC/N5001	<ul style="list-style-type: none"> Learn what is housekeeping Understand the importance & purpose of housekeeping Explain benefits of housekeeping Explain what is '5S' Understand each 'S' and its meaning Learn and practice cleaning of machine and work area with specified equipment and material 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Different Cleaning Equipment
6	Carry out reporting and documentation Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 15:00	<ul style="list-style-type: none"> Understand what is documentation Describe the importance of documentation. Define the purpose of documentation Learn the types of documentation Describe common documentation used in the rubber industry Explain what is reporting Describe the importance of reporting 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code RSC/N5002	<ul style="list-style-type: none"> • Explain about Government Acts and Bylaws • Describe the use of rules in an organization. • Understand the meaning of organization policies and guidelines • Describe the purpose of procedures in an organization • Explain what is work instruction • Define what is communication • Describe communication process • Explain problems in communication • Describe various communication barriers • Explain traits of active listening • Use points of good writing skill • Explain how to resolve conflict with a team member • Use organizational procedures for reporting and documentation • Decide priority of work from pending work list 	Handbook / Copies of Handouts, Sample of Documentations, Sample of Reports, Sample of Procedure, Sample of Work Instructions
7	Carry Out Quality Checks Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 25:00 Corresponding NOS Code RSC/N5003	<ul style="list-style-type: none"> • Learn need of quality control in Pre & Post Tyre Moulding • Identify testing equipment for Pre & Post Tyre Moulding • Use methodology of problem-solving • Describe implication of Pre & Post Tyre Moulding quality issues 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Tyre / Tyres with different Quality defects, Different Inspection Tools – Vernier Caliper, Micrometer, Rubber Hardness Tester, Measuring Tape, Tread Depth Gauge, X-Ray Machine
8	Carry out problem identification and escalation Theory Duration (hh:mm) 5:00	<ul style="list-style-type: none"> • Explain what is problem • Explain what is defined as a problem in an organization • Identify a problem in an organization • Describe hierarchies • Define hierarchy in Tyre Moulding industry • Escalate problem in an organization 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Practical Duration (hh:mm) 15:00 Corresponding NOS Code RSC/N5004	<ul style="list-style-type: none"> Describe the need for escalation in an organization 	Handbook / Copies of Handouts
9	Carry out health and safety Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code RSC/N5007	<ul style="list-style-type: none"> Describe what is defined as the hazards in an organization Identify hazard in a rubber industry Describe chemical hazard in a rubber industry Describe physical hazard in a rubber industry Describe ergonomic hazard in a rubber industry Explain the health and safety requirements for a rubber industry Discuss health and safety procedure of organization Explain what is Personal Protective Equipment (PPE) Discuss requirement of Personal Protective Equipment (PPE) Identify different types of Personal Protective Equipment (PPE) used in the rubber industry Demonstrate the use of different Personal Protective Equipment (PPE). Define what is an emergency Describe various emergency situations in Industry Describe common injuries in the industry Describe First Aid box and its constituents Demonstrate how to handle Fire Emergencies Demonstrate use of a multi-purpose Fire Extinguisher Describe type and class of fires Describe suitable fire extinguisher as per fire type and class 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Sample of PPEs – Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher
	COMPULSORY NOS: Total Duration	Unique Equipment Required: White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Awl venting machine, Tyre shaping machine, airbag	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration 140:00 Practical Duration 210:00	insertion machine, paint agitator, Splice jamming machine, PCI units, PCI rings, Tyre Mould, Tyre Mould Clamp, Crane, Machine and Mould cleaning Equipment, material handling equipment, Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher	

OPTION 1: Post cure inflation

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Carry out post cure inflation Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code RSC/N0227	<ul style="list-style-type: none"> Keep the hand tools ready for the post cure inflation Verify mounting of PCI (post cure inflation) ring on correct location for easy and timely loading of cured tyre for post cure inflation Check operational condition of the automatic pressure control and timer control Check trolley, and overhead conveyors readiness Use post cure inflation process as per standard operating procedure (SOP) Visually inspect the cured tyre coming out of the press for any blemishes Load the tyres on Manual or auto PCI units immediately after the tyre is released from the curing mold Set correct air pressure as per the SOP Set time cycle for post cure inflation Check the selector switch /lever which controls the inflation pressure automatically Comply with the total PCI time requirement Send the tyres after PCI for debagging, trimming, final inspection and finishing by manual rolling, or trolleys or overhead Conveyors 	White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, PCI units, PCI rings, Cured Tyre, material handling equipment, Safety Goggle, Safety Shoes, Safety Gloves, Mask, Earmuff, First Aid Box, Fire Extinguisher
	OPTION 1: Total Duration Theory Duration 10:00 Practical Duration 20:00	Unique Equipment Required: White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, PCI units, PCI rings, Cured Tyre, material handling equipment, Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher	

<p>GRAND Duration</p> <p>Minimum Duration for the QP= 350 Hrs Theory: 140 Hrs Practical: 210 Hrs</p> <p>Maximum Duration for the QP= 380 hrs Theory: 150 Hrs Practical: 230 Hrs</p>	<p>Total</p> <p>Unique Equipment Required for the QP: White Board + Marker or Blackboard + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Awl venting machine, Tyre shaping machine, airbag insertion machine, paint agitator, Splice jamming machine, PCI units, PCI rings, Tyre Mould, Tyre Mould Clamp, Crane, Machine and Mould cleaning Equipment, material handling equipment, Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher</p>
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(This syllabus/ curriculum has been approved by [Rubber Skill Development Council](#))

Trainer Prerequisites for Job role: “Pre & Post Tyre Moulding Operator (Option: Post cure inflation)” mapped to Qualification Pack: “RSC/Q2209, v2.0.”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “RSC/Q2209 Version 2.0”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well- organized and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Any Graduate preferably in rubber or polymer
4a	Domain Certification	Certified for Job Role: “Pre & Post Tyre Moulding Operator (Option: Post cure inflation)” mapped to QP: “RSC/Q2209”. Minimum accepted score as per SSC guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer,” mapped to the Qualification Pack: “MEP/ Q0102”. Minimum accepted score as per SSC guidelines is 80%.
5	Experience	5+ years of relevant work-experience, above supervisor level

Annexure: Assessment Criteria

Assessment Criteria	
Job Role:	Pre & Post Tyre Moulding Operator (Options: Post cure inflation)
Qualification Pack Code:	RSC/Q2209
Sector Skill Council:	Rubber Skill Development Council

S. No.	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 the 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	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
RSC/N2225 Prepare tools, equipment, and machine for tyre moulding	PC1. Ensure that the machines are clean and ready to use.	100	2	0	2
	PC2. Ensure that the tools required for pre cure operation are ready.		3	0	3
	PC3. Ensure that correct jammers are used for the selected tyre size		9	5	4
	PC4. Ensure manual or mechanical awl venting machine are ok and operational		9	5	4
	PC5. Ensure the multiple plate jammers are well covered with a nylon cloth or any other fabric material which prevents plates from damaging the tread but take the contour of tread and uniformly jam across the width of the tread splice		8	6	2
	PC6. Ensure that the tyre shaping and airbag insertion machine is in operation (In case of tyres cured with airbags)Ensure correctness of PCI rings, pressure settings, and the timers are operational		8	6	2
	PC7. Ensure that the material (lubricant and paint) required are approved and released by the laboratory.		8	5	3
	PC8. Ensure that the paint /lubricant/cement are kept in agitation to maintain the homogeneity/viscosity/solids and proper dispersion		12	8	4
	PC9. Ensure availability of airbags (where the curing is done with airbags)		6	3	3
	PC10. Precaution against static discharge		7	4	3
	PC11. Proper earthing to avoid sparks or fire in the painting booths		8	5	3
	PC12. Adhere to all safety norms (such as wearing protective gloves, mask, earplugs and safety shoes).		7	3	4
	PC13. Avoid water, oil and other materials on the table		4	2	2
	PC14. Ensure safety of self and surrounding area by ensuring no spillage of painting cement or solvents /proper ventilation/non usage of electrical appliances		1	1	0
	PC15. Follow safety measures as laid down by the safety department		2	1	1
	PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	PC17. Ensure sprinklers and other fire safety devices are available and certified by fire safety inspectors		4	4	0
Total			100	60	40
RSC/N2226 Carry out tyre pre cure preparation	PC1. Ensure, by visual inspection, that tyre is of desired quality	100	8	4	4
	PC2. Handle the paints and lubricants properly to avoid contamination		4	2	2
	PC3. Follow pre cure preparation process as per instructions /SOP.		11	8	3

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC4. Load the tyre on splice jamming machine using correct jammers for the selected tyre size - use correct specified pressure and time for jamming		8	4	4
	PC5. Apply the correct jamming cycle on each tyre		10	6	4
	PC6. Inspect jammed tyre for any open splice joints		4	0	4
	PC7. Move the jammed tyres to the painting area		8	4	4
	PC8. Apply correct inside lubricant evenly inside the tyre ; ensure uniform application of the lubricant		4	0	4
	PC9. Use awl for awl venting the sidewall area of the tyre – usage of manual awl venting tool or mechanical awl venting machine –venting to be done as per SOP		12	6	6
	PC10. Apply correct specified outside paint in the side wall area and inside paint on the inside of the tyre covering from bead toe to bead toe		3	0	3
	PC11. Ensure that the tyre mould is sprayed with very thin film of mold release lubricant before placing the tyre in the tyre press		4	1	3
	PC12. Proper handling of machine and tools to avoid any injury/accident		4	1	3
	PC13. Handle the material using hand gloves and other safety equipment as directed by organizations safety department		6	3	3
	PC14. Adhere to all safety norms (such as wearing protective gloves, masks and shoes)		5	2	3
	PC15. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	PC16. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the work area		2	2	0
	PC17. Move off spec green tyre to disposal area as per the waste disposal procedures laid down by technical		5	5	0
	Total		100	50	50
RSC/N2227 Carry out tyre post cure operation	PC1. Keep the hand tools ready for the post cure preparation.	100	3	0	3
	PC2. Ensure correct PCI rings availability		4	4	0
	PC3. Ensure the automatic pressure control and timer controls are operational,		4	0	4
	PC4. Trolleys, overhead conveyors		4	0	4
	PC5. Follow post cure preparation process as per instructions /SOP		12	8	4
	PC6. Ensure that the tyres are loaded with Manual or auto PCI units immediately after the tyre is released from the curing mold. (the time lag between the extraction of tyre from mold and placing the extracted tyre in the PCI stand is		5	0	5

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	important and hence need to be followed per specification)				
	PC7. Ensure that the time lag between the cured tyres out of the mold after press open to application of PCI must conform to norms laid down by technical.		10	5	5
	PC8. Set air pressure correctly as per the technical specifications		4	0	4
	PC9. Ensure that the correct PCI rings are used		9	5	4
	PC10. Place tyres on the PCI ring in the proper way to avoid any air leakages		8	4	4
	PC11. Set time cycle for post cure inflation		5	0	5
	PC12. Send the tyres to inspection and final finish area by manual rolling, or trolleys or overhead Conveyors		5	5	0
	PC13. Ensure proper handling of cured tyres to avoid any injury/accident		5	5	0
	PC14. Handle the tyre using hand gloves and other safety equipment as directed by organizations safety department		9	5	4
	PC15. Adhere to all safety norms (such as wearing protective gloves, masks, and shoes)		9	5	4
	PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	PC17. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the work area		2	2	0
	Total		100	50	50
RSC/N5001 Carry out housekeeping in rubber product manufacturing	PC1. Inspect the area while taking into account various surfaces	100	3	3	0
	PC2. Ensure the floor is free of any cement cans/brushes, spray guns , green /cured tyres		0	0	0
	PC3. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		3	3	0
	PC4. Ensure that the cleaning equipment is in proper working condition		3	3	0
	PC5. 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
	PC6. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		3	3	0
	PC7. Inform the affected people about the cleaning activity		2	2	0
	PC8. Display the appropriate signage for the work being conducted		3	3	0
	PC9. Ensure that there is adequate ventilation for the work being carried out		3	3	0

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC10. Wear the personal protective equipment required for the cleaning method and materials being used		3	3	0
	PC11. Use the correct cleaning method for the work area, type of soiling and surface		3	3	0
	PC12. Carry out cleaning activity without disturbing others		3	3	0
	PC13. Deal with accidental damage, if any, caused while carrying out the work		3	3	0
	PC14. Report to the appropriate person any difficulties in carrying out your work		3	3	0
	PC15. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		3	3	0
	PC16. Ensure that there is no oily substance on the floor to avoid slippage		9	3	6
	PC17. Ensure that no scrap material is lying around		9	3	6
	PC18. Maintain and store housekeeping equipment and supplies		3	3	0
	PC19. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		3	3	0
	PC20. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		8	2	6
	PC21. Return the equipment, materials and personal protective equipment that was used in the right places making sure they are clean, safe and securely stored		3	3	0
	PC22. Dispose the waste garnered from the activity in an appropriate manner		9	3	6
	PC23. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly		9	3	6
	PC24. Maintain schedules and records for housekeeping duty		3	3	0
	PC25. Replenish any necessary supplies or consumables		3	3	0
	Total		100	70	30
RSC/N5002 Carry Out Reporting And Documentation	PC1. Report data/problems/incidents as applicable in a timely manner	100	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
	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

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC7. Ensure that the final document meets 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
	PC9. Respond to requests for information in an appropriate manner while following organizational procedures		6	6	0
	PC10. Inform the appropriate authority of requests for information received		6	6	13
	Total		100	60	40
RSC/N500 3 Carry Out Quality Checks	PC1. Ensure that total range of checks are regularly and consistently performed	100	24	10	14
	PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required		24	10	14
	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 a 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 the problem		5	3	2
	PC8. Review effectiveness of the corrective action		5	3	2
	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 the stipulated time		3	3	0
	PC12. Record the results of the 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 the defect cannot be identified		2	2	0
	Total		100	60	40
RSC/N500 4 Carry Out Problem Identification And Escalation	PC1. Identify defects/indicators of problems	100	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

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC6. Ensure that no delays are caused as a result of failure to escalate problems		5	3	2
	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 action taken to determine if the problem has been resolved		2	2	0
	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
	PC21. Escalate problem as per laid down escalation matrix		4	3	1
	PC22. Escalate the problem within the 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
	Total		100	70	30
RSC/N5007 Carry out health and safety	PC1. Undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor	100	6	4	2
	PC2. Work for which protective clothing or equipment is required is identified, and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		6	4	2
	PC3. Read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities, etc		0	0	0

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC4. Prior to performing manual handling jobs, the risk is assessed, and work is carried out according to currently recommended safe practices.		6	4	2
	PC5. Use equipment and materials safely and correctly and return the same to designated storage when not in use		3	2	1
	PC6. Dispose off waste safely and correctly in a designated area		6	4	2
	PC7. Risks to bystanders are recognized and action taken to reduce risk associated with jobs in the workplace		0	0	0
	PC8. Perform work in a manner which minimizes environmental damage		0	0	0
	PC9. All procedures and work instructions for controlling risk are followed closely.		0	0	0
	PC10. Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce the further danger.		0	0	0
	PC11. Follow procedures for dealing with accidents, fires, and emergencies, including communicating location and directions to emergency.		6	4	2
	PC12. Follow emergency procedures as per company standards and workplace requirements.		8	5	3
	PC13. Use Emergency equipment in accordance with manufacturers' specifications and workplace requirements.		8	5	3
	PC14. Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques.		0	0	0
	PC15. Recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		0	0	0
	PC16. Dispose off medical waste in accordance with workplace requirements		0	0	0
	PC17. Report details of first aid administered in accordance with work place procedures.		7	4	3
	PC18. Comply with general safety procedures		8	4	4
	PC 19. Follow standard safety procedures while handling equipment, hazardous material or tool		0	0	0
	PC20. Check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc.		8	5	3
	PC21. Ensure no accidents and damages in the workplace, reporting of any breach of company safety procedure		0	0	0
	PC22. Keep the workplace organized, swept, clean and hazard free		8	5	3
	PC23. Attend fire drills and other safety related workshops organized at the workplace		4	2	2
	PC24. Be aware of first aid, evacuation and emergency procedures		4	2	2

Assessable Outcome	Assessment Criteria	Total Mark (800)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC25. Be alert of any events and do not be negligent to any safety procedures to be followed		0	0	0
	PC26. Avoid accidents while using hazardous chemicals, machines, sharp tools and equipment		4	2	2
	PC27. Use safety materials such as protective gear, goggles, caps, shoes, etc.(as applicable with workplace)		4	2	2
	PC28. Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders		4	2	2
	Total		100	60	40
	Grand Total	800	800	480	320
	<u>Percentage Weightage:</u>			60%	40%
	<u>Minimum Pass% to qualify (aggregate):</u>			60%	

OPTIONS					
Optional 1.1: Post cure inflation					
Assessable Outcome	Assessment Criteria	Total Mark (100)	Out Of	Marks Allocation	
				Theory	Skills Practical
RSC/N2224 Carry out post cure inflation	PC1. Keep the hand tools ready for the post cure inflation	100	5	3	2
	PC2. Ensure correct PCI rings availability		4	2	2
	PC3. Ensure PCI ring is mounted on correct location for easy and timely loading of cured tyre for Post cure inflation		6	4	2
	PC4. Ensure the automatic pressure control and timer controls are operational		4	3	1
	PC5. Ensure that pressure gauge and Timer is big enough in size so that operator can see from distance		3	2	1
	PC6. Trolley and overhead conveyors are ready		3	2	1
	PC7. Follow post cure inflation process as per instructions /SOP.		6	4	2
	PC8. Visually Inspect the cured tyre coming out of the press for any blemishes and placed it on the horizontal or vertical PCI rings.		5	4	1
	PC9. Ensure that the tyres are loaded on Manual or auto PCI units immediately after tyre is released from the curing mold		5	3	2
	PC10. Ensure that the time lag between the cured tyre out of the mold after press open to application of PCI must conform to norms laid down by technical.		4	2	2
	PC11. Set air pressure correctly as per the technical specifications		4	2	2
	PC12. Ensure that the correct PCI rings are used		5	3	2
	PC13. Place tyres on the PCI rings in proper way to avoid any air leakages		5	3	2
	PC14. Set time cycle for post cure inflation		5	3	2
	PC15. Check the selector switch /lever which controls the inflation pressure automatically		4	3	1
	PC16. Comply with the total PCI time requirement		5	3	2
	PC17. Send the tyres after PCI for debagging (in case of airbag type cure) , trimming, final inspection and finishing by manual rolling, or trolleys or overhead Conveyors		5	3	2
	PC18. Proper handling of cured tyres to avoid any injury/accident		5	3	2
	PC19. Handle the tyre using hand gloves and other safety equipment as directed by organizations safety department		4	3	1

Assessable Outcome	Assessment Criteria	Total Mark (100)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC20. Adhere to all safety norms (such as wearing protective gloves, masks and shoes)		4	3	1
	PC21. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		4	0	4
	PC22. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the work area		5	2	3
	Total		100	60	40