







Model Curriculum

1. Filling and Packing Operator

SECTOR: PAINTS AND COATINGS

SUB-SECTOR: MANUFACTURING

OCCUPATION: LIQUID AND POWDER PAINT PRODUCTION

REF ID: PCS/Q0902, V1.0

NSQF LEVEL: 3















Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

PAINTS AND COATINGS SKILL COUNCIL

for

MODEL CURRICULUM

Complying to National Occupational Standards of Job Role/Qualification Pack: 'Filling and Packing Operator' QP No. 'PCS/Qogoz NSQF Level 3'

Date of Issuance: December 27th , 2016

Valid up to*: March 31st, 2018

*Valid up to the next review date of the Qualification Pack or the 'Valid up to' date mentioned above (whichever is earlier) Authorised Signatory (Paints and Coatings Skill Council)









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Filling and Packing Operator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Filling and Packing Operator", in the "Paints and Coatings" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Filling and Packing Operator		
Qualification Pack Name & Reference ID. ID	PCS/Q0902, v1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	8 th Standard		
Training Outcomes	 Know about the India and its such that the India and India and	ifferent types of liquid and powder paints and its uses es and disadvantages he major ingredients of liquid and powder paint baint and powder manufacturing in general and the	









This course encompasses 6 out of 6 National Occupational Standards (NOS) of "Filling and Packing Operator" Qualification Pack issued by "Paints and Coatings Skill Council".

	ualification Pack issued by " <u>Paints and Coatings Skill Council</u> ".						
Sr. No.	Module	Key Learning Outcomes	Equipment Required				
1	Introduction Theory Duration (hh:mm) 6:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module	 Understand General Discipline in the class room (Do's & Don'ts) Understand the scope of the Paints and Coatings sector in India with its sub sectors Understand the liquid and powder paint segment Advantages and benefits and features of various liquid and powder paints as well as its uses and shortcomings Learn and Practice Basic skills of communication 	Laptop, white board, marker, projector				
2	Label the containers or bags Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code PCS/Nogo1	 Understand the different types of liquid and powder paints, their characteristics and where they are used Compare and explain differences between water based and solvent based paints Compare, understand and explain the differences between the various resin systems used Understand the components of liquid paints and powder paints and their chemistry Learn basics of liquid and powder paint manufacture Learn to identify the recommended packing quality, size and label requirement from the process sheet Learn to prepare the packing material as per SOP and/ or customer's requirements Learn the requirement of information to be printed on the label from the process sheet or SOP. Learn and understand the working of the packing machine Follow instructions of the process sheet and SOP to pack the right quantity Clean the machine as per the SOP after completing the packing Communicate with colleagues/supervisor regarding the operation at each stage 	Laptop, white board, marker, projector, first aid kit. Lab model paint processing set up, packing machine, containers, bags.				
3	Fill and Pack the Paint	Understand the working of the packing	Laptop, white				
	Theory Duration (hh:mm) 40:00 Practical Duration	 machine Learn to calibrate the packing machine for filling the right quantity 	board, marker, projector, first aid kit.				









Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 70:00 Corresponding NOS Code PCS/Nogo2	 Learn and understand the determination of the weight to be packed using the weight per litre data Understand the container cleaning system as per SOP or customer's requirement Understand the requirement of primary packing and secondary packing as per the process sheet Communicate with colleagues/supervisor regarding the operation at each stage 	Lab model paint processing set up and packing machine, containers and bags
4	Co-ordinate with colleagues and/or customers Theory Duration (hh:mm) 08:00 Practical Duration (hh:mm) 04:00 Corresponding NOS	 Understand customer requirements and specifications Learn about various performance indicators, meaning of targets ad timelines and how to communicate about these with your colleagues and customers Learn appropriate behavioural skills whilst dealing with colleagues/co-workers Learn how you can contribute to improving customer satisfaction 	Laptop, white board, marker, projector
	Code PCS/N9901		
5	Maintain standards of product / service quality Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code	 Learn about quality requirements for manufacturing process Understand how quality is defined, various tests and their acceptance criteria, and how standards can be achieved Learn about various equipment used for quality tests and how to use them Learn to meet and exceed quality requirements of a customer 	Laptop, white board, marker, projector
6	PCS/N9902 Maintain OH&S standards and follow environmental standards Theory Duration (hh:mm) 6:00 Practical Duration (hh:mm) 16:00	 Learn about health hazards of chemicals/ingredients used in paint manufacturing Learn the use and importance of personal protective equipment Learn to handle chemical, powder materials, tools and equipment in a safe manner Minimising risks of inhalation injury Become aware of hazards in liquid paint manufacturing process and how to prevent/eliminate them 	Laptop, white board, marker, projector









Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code PCS/N9903	 Understand methods and precautions to be taken for safe disposal of waste generated in the process Learn about safety signs in a plant environment and how to interpret and adhere to them 	
7	Maintain IPR of organisation and customers Theory Duration (hh:mm) 04:00 Practical Duration (hh:mm) 04:00 Corresponding NOS Code PCS/N9904	 Learn to explain the meaning of IPR and the various confidential information and trade secrets in an organisation Understand why protection of IPR and trade secrets are critical for a business Learn about your responsibilities in maintaining IPR and trade secrets of your organisation and customers 	Laptop, white board, marker, projector
	Total Duration Theory Duration 96:00 Practical Duration 144:00	Unique Equipment Required: First aid kit	

Grand Total Course Duration: 240Hours, o Minutes

(This syllabus/curriculum has been approved by <u>Paints and Coatings Skill Council</u>)









Trainer Prerequisites for Job role: "Filling and Packing Operator" mapped to Qualification Pack: "PCS/Qo902, v1.0"

Sr. No.	Area	Details
1	Description	A Filling and Packing Operator is an individual who labels the empty cans, containers, drums or bags with the labels provided by the supervisor. Fills the finished liquid or powder paint as per the quantity indicated by the supervisor, seals the lid or bag, and packs them into carton boxes.
2	Personal Attributes	A Filling and Packing Operator should have attention to details, ability work in a paint-redolent environment, good hand-eye coordination, and ability to lift heavy weight and work for long hours in standing position.
3	Minimum Educational Qualifications	12 th Standard
4a	Domain Certification	Certified for Job Role: "Filling and Packing Operator" mapped to QP: "PCS/Qogo2, v1.0". Minimum accepted score is 80%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted % as per respective SSC guidelines is 70%.
5	Experience	 5-year experience in laboratory or manufacturing and relevant training or teaching experience.









Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Filling and Packing Operator
Qualification Pack	PCS/Q0902, V1.0
Sector Skill Council	Paints and Coatings

Sr. 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 proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate and each 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.

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
	PC1. receive the job sheet and understand the details		2.5	1	1.5
	PC2. understand the target to be completed for packing		2.5	1	1.5
	PC3. plan the work to complete the packing as per target and requirements		2.5	1	1.5
	PC4. receive the finished paint/powder from respective department or supervisor		2.5	1	1.5
	PC5. use necessary protective gears while handling the paints and powder	50	2.5	1	1.5
PCS/N0901	PC6. obtain the net weight and volume of the paint/powder to be packed		2.5	1	1.5
Label the	PC7. get the batch number		2.5	1	1.5
containers or bags	PC8. confirm the prices of the paints/powder as per the recent company update		2.5	1	1.5
	PC9. understand the number of cans/bags to be sealed as per the batch sheet		2.5	1	1.5
	PC10. feed the label details such as quantity, weight, batch number, colour, price, instruction for handling, etc. from the job sheet to the required equipment				
	such as machine or computer for every batch		3	1	2
	PC11. check the details fed onto the machine		3	1	2









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC12. ensure all the details are updated				
for the label		3	1	2
PC13. print and paste the label, in case				
of computer feeding		2.5	1	1.5
PC14. roll the empty cans on the				
conveyor belt in the desired position, in				
case of machine feeding		3	1	2
PC15. ensure the camera captures the				
logo of the company or any specification				
on the can, for the machine to recognize				
the can for print		3	1	2
PC16. send the cans through the				
labeling line		2.5	1	1.5
PC17. put bar code on the cans, if				
required		2.5	1	1.5
PC18. ensure the prints on the cans				
when they are out of the labeling line		2.5	1	1.5
PC19. check the label details and pass				
on to the filling team		2.5	1	1.5
POINTS		50	19	31
TOTAL POINTS			50	

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
	PC1. obtain the cans from the labelling section		1.5	0.5	1
	PC2. understand the job sheet to get the batch details		1.5	0.5	1
	PC3. adjust the conveyor belt size and width of the piston depending on the pail size to be filled	50	1.5	0.5	1
	PC4. feed the quantity to be filled by the machine PC5. set up the line of the conveyor		1.5	0.5	1
PCS/N0902 Fill and Pack	PC5. set up the line of the conveyor belt		1.5	0.5	1
the paint	PC6. place the cans onto the belt		1.5	0.5	1
	PC7. ensure the cans are pumped and filled with paints		2.5	1	1.5
	PC8. weigh the powder paint produced as per the requirement in case of packing powder paints		3	1	2
	PC9. fill the bags with the powder		3	1	2
	PC10. ensure the bags are filled with			_	_
	correct quantity for powder coats		2.5	1	1.5
	PC11. keep lids on the lid machine		2.5	1	1.5









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC12. ensure lids are properly pressed				
on lid pressing unit		3	1	2
PC13. tie the bags securely (where				
machine not available)		2.5	1	1.5
PC14. ensure the cans are passed to				
palletizing unit on conveyor belt		3	1	2
PC15. adjust the robot panels to				
palletize depending on the pail sizes		3	1	2
PC16. enter palette id and bar code into				
ASRS		3	1	2
PC17. ensure robot place pallets on				
conveyor to pass it to ASRS		2.5	1	1.5
PC18. ensure zero material loss while packing		2.5	1	1.5
PC19. ensure no leakage after packing				_
	_	2	0.5	1.5
PC20. follow organization standards and procedures on labelling and packing		2	0.5	1.5
	-			
	_	2	0.5	1.5
PC22. ensure to perform packing as per				
the job sheet requirement		2	0.5	1.5
POINTS		50	17	33
TOTAL POINTS			50	

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
	PC1. receive job order and instructions from reporting superior		0.5	0.0	0.5
	PC2. understand the work output requirements, targets, performance indicators and incentives		2.0	0.5	1.5
	PC3. deliver quality work on time and report any anticipated reasons for delays		2.0	0.5	1.5
PCS/N9901 Coordinate	PC4. escalate unresolved problems or complaints to the relevant senior		2.0	0.5	1.5
with colleagues	PC5. communicate maintenance and repair schedule proactively to the superior	50	2.0	0.5	1.5
customers	PC6. receive feedback on work standards		1.0	0.0	1.0
	PC7. document the completed work schedule and handover to the superior		2.0	0.5	1.5
	PC8. exhibit trust, support and respect to all the colleagues in the workplace		1.0	0.25	0.75
	PC9. aim to achieve smooth workflow		2.0	0.5	1.5
	PC10. help and assist colleagues with information and knowledge		1.0	0.0	1.0









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC11. seek assistance from the colleagues when required	•	1.0	0.25	0.75
PC12. identify the potential and existing conflicts with the colleagues and resolve		1.0	0.25	0.75
PC13. pass on essential information to other colleagues on timely basis		1.0	0.0	1.0
PC14. maintain the etiquette, use polite language, demonstrate responsible and disciplined behaviours to the colleagues		2.0	0.5	1.5
PC15. interact with colleagues from different functions clearly and effectively on all aspects to carry out the work among the team and understand the nature of their work		1.0	0.25	0.75
PC16. put team over individual goals and multi task or share work where necessary supporting the colleagues		2.0	0.0	2.0
PC17. highlight any errors of colleagues, help to rectify and ensure quality output		1.0	0.25	0.75
PC18. work with cooperation, coordination, communication and collaboration, with shared goals and supporting each other's performance		1.0	0.0	1.0
PC19. ask more questions to the customers and identify their needs		1.0	0.25	0.75
PC20. possess strong knowledge on the product, services and market		2.0	0.5	1.5
PC21. brief the customers clearly on potential costs and hazards		1.0	0.25	0.75
PC22. communicate with the customers in a polite, professional and friendly manner		1.0	0.25	0.75
PC23. build effective but impersonal relationship with the customers		0.5	0.25	0.25
PC24. ensure the appropriate language and tone are used with customers		1.0	0.25	0.75
PC25. listen actively and have a two way communication		1.0	0.25	0.75
PC26. be sensitive to the gender, cultural and social differences such as modes of greeting, formality, etc.		1.0	0.25	0.75
PC27. understand the customer expectations correctly and provide the appropriate products and services		2.0	0.5	1.5
PC28. understand the customer dissatisfaction and address or escalate their complaints effectively		2.0	0.5	1.5
PC29. maintain a positive, sensible and cooperative manner all time		1.0	0.25	0.75
PC30. ensure to maintain a proper body language, dress code, gestures and etiquettes towards the customers		1.0	0.25	0.75









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC31. avoid interrupting the customers while they talk		1.0	0.0	1.0
PC32. ensure to avoid negative questions and statements to the customers		1.0	0.0	1.0
PC33. inform the customers on any issues or problems before hand and also on the developments involving them		2.0	0.5	1.5
PC34. ensure to respond back to the customer immediately for their voice messages, e-mails, apps, etc.		1.0	0.0	1.0
PC35. develop good rapport with the customers and promote other products and services		2.0	0.5	1.5
PC36. seek feedback from the customers on their understanding to what was discussed		1.0	0.0	1.0
PC37. explain the terms and conditions clearly		2.0	0.5	1.5
POINTS		50	10	40
TOTAL POINTS				50

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
	PC1. keep in mind the profiles of expected customers		2.0	0.5	1.5
	PC2. understand the target customers and their product/ service quality requirements as defined by the company		3.0	0.5	2.5
	PC3. receive superior's/ customer feedback regularly		2.0	0.0	2.0
	PC4. aim to build a good connect with the customers through quality product/ service		2.0	0.5	1.5
PCS/N9902	PC5. keep tab on frequent discussions with regular customers on general likes and dislikes in the market, latest trends, customer		2.0	0.5	1.5
Maintain standards of product/ service quality	expectations, etc. PC6. receive updates on regular feedbacks from the clients on current service, complaints, and improvements to be made, etc.	50	2.0	0.5	1.5
	PC7. if necessary, compulsively seek customer rating of product/ service in order to help develop a set of regularly improved procedures		2.0	0.5	1.5
	PC8. demonstrate quality orientation at all level		4.0	1.5	2.5
	PC9. aim to gain their long lasting loyalty through satisfaction		3.0	1.0	2.0
	PC10. ensure 100% customer satisfaction via product/ service quality		3.0	0.5	2.5









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC11. treat the customers fairly and with due respect		3.0	0.5	2.5
PC12. focus on executing company's marketing strategies and product development needs		3.0	1.0	2.0
PC13. focus on enhancing brand value of company by maintaining or enhancing quality standards		3.0	1.0	2.0
PC14. ensure that customer expectations are met		2.0	0.5	1.5
PC15. learn to read customers' needs and wants		2.0	0.5	1.5
PC16. willingly accept and implement new and innovative products and services that help improve customer satisfaction		3.0	1.0	2.0
PC17. communicate feedback of customer to senior, especially, the negative feedback		2.0	0.5	1.5
PC18. maintain close contact with the customers and focus groups		2.0	0.5	1.5
PC19. offer promotions to improve product satisfaction level to the customers periodically		3.0	1.0	2.0
PC20. weigh the cost of fulfilling unscheduled customer requests, consult with senior and advise the customer on alternatives		2.0	0.5	1.5
POINTS		50	13	37
TOTAL POINTS	-			50

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
	PC1. assess the various health, safety and environmental hazards in the work areas		1.5	0.4	1.1
	PC2. take necessary steps to eliminate or minimize the hazards		1.0	0.4	0.6
	PC3. analyze the causes of accidents at the workplace		1.5	0.4	1.1
PCS/N9903 Maintain O&HS	PC4. suggest measures to prevent such accidents from taking place		1.5	0.4	1.1
standards and follow environmental	PC5. take preventive measures to avoid risk of burns and other injury due to contact with hot surfaces, gas, fire, hot fluids/ liquids, etc.	50	1.5	0.4	1.1
norms	PC6. suggest methods to improve the existing safety procedures at the workplace		1.5	0.4	1.1
	PC7. dispose waste in the designated areas safely as per company's policies and rules		1.5	0.4	1.1
	PC8. maintain appropriate ventilation in the rooms while there is more exposure to paint vapours		1.0	0.4	0.6









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC9. avoid dumping unused cans to safeguard the environment		1.0	0.0	1.0
PC10. be aware of the locations of fire extinguishers, emergency exits, etc.		1.0	0.4	0.6
PC11. practice correct emergency procedures		1.5	0.4	1.1
PC12. check and review the storage areas frequently		1.5	0.4	1.1
PC13. stack items in an organized way and use safe lifting techniques to reduce risk of injuries from handling procedures at the storage areas		1.5	0.4	1.1
PC14. ensure to be safe while handling materials, tools, acids, chemicals, equipment, etc.		1.0	0.4	0.6
PC15. store the chemicals and acids in a well-ventilated and locked areas with warning signs displayed		1.5	0.4	1.1
PC16. ensure safe techniques while moving furniture and fixtures		1.5	0.4	1.1
PC17. ensure to reduce risk of injury from use of electrical tools		1.5	0.4	1.1
PC18. read the manufacturer's manual carefully before use of any equipment		1.0	0.0	1.0
PC19. unplug the electrical equipment before performing maintenance		1.0	0.4	0.6
PC20. keep the floors free from oil, water and grease to avoid slippery surface		1.0	0.4	0.6
PC21. use rubber mats in the places where floors are constantly wet		1.0	0.0	1.0
PC22. ensure safety from injuries of cuts to loss of fingers, while handling sharp hazardous tools and equipment		1.5	0.4	1.1
PC23. use flat surfaces, secure holding and protective wear while using such sharp tools		1.5	0.4	1.1
PC24. use health, safety and environmental protection practices for storing, cleaning, and maintaining tools, equipment, and supplies		1.5	0.4	1.1
PC25. practice ergonomic lifting, bending, or moving equipment and supplies		1.5	0.4	1.1
PC26. identify the requirement for maintaining environmental norms		1.0	0.4	0.6
PC27. comply with the environmental safety norms while on work to prevent accidents and health hazards		1.0	0.4	0.6
PC28. follow company policies and rules regarding use of hazardous materials to avoid health, safety and environmental impacts caused by them		1.0	0.4	0.6









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC29. ensure the employees have access to first aid kit when needed	-	1.0	0.0	1.0
PC30. ensure all equipment and tools are stored and maintained properly and safe to use		1.0	0.4	0.6
PC31. ensure to use personal protective equipment and safety gear such as gloves, mask, headwear, footwear, glasses, goggles, etc. for specific tasks and work conditions where required		1.5	0.4	1.1
PC32. ensure to display safety signs at places where necessary for people to be cautious		1.5	0.4	1.1
PC33. ensure electrical precautions such as insulated clothing, adequate equipment insulation, dry work area, switch off the power supply when not required, etc.		1.5	0.4	1.1
PC34. ensure availability of general health and safety equipment such as fire extinguishers, first aid equipment, safety equipment, clothing, safety installations such as fire exits, exhaust fans, etc.		1.5	0.4	1.1
PC35. document all the first aid treatments, inspections, etc., conducted to keep track of the safety measures undertaken		1.0	0.4	0.6
PC36. document all the environmental hazards caused and the measures undertaken to comply with the established safety procedures of the workplace		1.0	0.0	1.0
PC37. report to the supervisor on any problems and hazards identified and any breach of environmental procedures.		1.0	0.4	0.6
PC38. ensure zero accident at workplace		1.0	0.4	0.6
PC39. adhere to safety standards and ensure no material damage		1.0	0.4	0.6
PC40. take necessary action and correct any environmental hazards caused		1.0	0.4	0.6
POINTS		50	14	36
TOTAL POINTS				50

	Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PCS/N9904 Maintain IPR of organisation and customer	PC1. prevent leak of new plans and designs to competitors by reporting on time		7.0	0.0	7.0
	PC2. be aware of any of company's product or design patents	50	8.0	1.0	7.0
	PC3. report IPR violations observed in the market, to supervisor or company head		8.0	2.0	6.0









Performance Criteria	Total Marks (300)	Out of	Theory	Skills Practical
PC4. read copyright clause of the material published on the internet and any other printed material		8.0	0.5	7.5
PC5. protect infringement upon customer's business or design plans		8.0	2.0	6.0
PC6. consult supervisor or senior management when in doubt about using information available from customer		6.0	0.0	6.0
PC7. report any infringement observed by anyone in the company		5.0	0.0	5.0
POINTS	•	50	5.5	44.5
TOTAL POINTS				50
GRAND TOTAL	300			