



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR PAINTS AND COATINGS INDUSTRY

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What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack: Liquid Paint Processing Operator

SECTOR: PAINTS AND COATINGS

SUB-SECTOR: MANUFACTURING

OCCUPATION: Production – Liquid Paint

REFERENCE ID: PCS/Q0510

ALIGNED TO: NCO-2015/ 8131.9900

The Liquid Paint Processing Operator is responsible for pre-mixing the paint raw materials, under high speed, to form a homogenous paste, grinding the pre-mix in the recommended dispersion machine to achieve the desired fineness/smoothness, adding the remaining ingredients as per the formula and mixing in a suitable mixer, to achieve the specified properties, as per company's standard operating procedure.

Brief Job Description: The individual at work charges the recommended extender, pigment, resin, additives and solvent in the premix unit, then disperses the premixed material in grinding units such as ball mill, bead mill, attritor and sand mill, to achieve the required fineness/ smoothness, before letting down the mill base in the mixer. The remaining raw materials are added in the mixer and the final properties of the paint adjusted, as per specification.

Personal Attributes: The job requires the individual to have: orientation to details, ability to work in shifts, good eye sight and physical stamina.



Job Details

Qualifications Pack Code	PCS/Q0510		
Job Role	Liquid Paint Processing Operator		
Credits(NSQF)	TBD	Version number	1.0
Sector	Paints and Coatings	Drafted on	15/06/17
Sub-sector	Manufacturing	Last reviewed on	15/06/17
Occupation	Production – Liquid Paint	Next review date	30/06/19
NSQC Clearance on	NA		

Job Role	Liquid Paint Processing Operator
Role Description	Premixing the ingredients, grinding the pre-mix, letting down the millbase and mixing the remaining raw materials as per company's standard operating procedure
NSQF level	4
Minimum Educational Qualifications	10 th standard
Maximum Educational Qualifications	Not Applicable
Training (Suggested but not mandatory)	Not Applicable
Minimum Job Entry Age	18 years
Experience	Desirable 1 year as Production Helper
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> PCS/N0502 Charge the materials into the dispersion machine PCS/N0503 Grind the materials in dispersion unit PCS/N0504 Mix the paint raw materials PCS/N9901 Coordinate with colleagues and/or customers PCS/N9902 Maintain standards of product/ service quality PCS/N9903 Maintain OH&S standards and follow environmental norms PCS/N9904 Maintain IPR of organisation and customers <p>Optional:</p> <ol style="list-style-type: none"> NA
Performance Criteria	As described in the relevant OS units



Definitions

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



	designated responsibilities.
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Acronyms

Keywords /Terms	Description
NSQF	National Skills Qualifications Framework
QP	Qualification Pack
OS	Occupational Standards
OH&S	Occupational Health and Safety
PPE	Personal Protective Equipment
HR	Human Resources
TBD	To be done



PCS/N0502

Charge the materials into the dispersion machine

National Occupational Standard



Overview

This unit is about charging specified raw materials into the dispersing machine, either directly or after suitable premixing, as indicated in the job sheet/ formulation.



PCS/N0502

Charge the materials into the dispersion machine

Unit Code	PCS/N0502
Unit Title (Task)	Charge the materials into the dispersion machine
Description	This OS unit is about charging specified raw materials into the dispersing machine, either directly or after suitable premixing, as indicated in the job sheet/ formulation
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Receive work instructions from supervisor • Procure the raw materials • Pre-mix the required raw materials • Charge the materials to disperser
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Receiving work instructions from supervisor	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. understand the right raw materials to be used</p> <p>PC2. obtain the formulations prepared for the particular batch</p> <p>PC3. understand the job sheet for target and requirement</p>
Procuring the raw materials	<p>To be competent, the user/ individual must be able to:</p> <p>PC4. pump the solvents and resins from internal storage vessels</p> <p>PC5. ensure to receive the right raw materials such as powder, additives, etc.</p>
Pre-mixing the required raw materials	<p>To be competent, the user/ individual must be able to:</p> <p>PC6. mix water and additives in case of water base paint manufacture</p> <p>PC7. mix the powder, pigments, resin, solvent and additives in case of solvent base paint manufacture based on the formulations</p> <p>PC8. ensure that the correct materials are added</p> <p>PC9. ensure the right amount and proportion of materials are mixed</p> <p>PC10. ensure the mixing happens for the appropriate time duration</p>
Charging the materials to disperser	<p>To be competent, the user/ individual must be able to:</p> <p>PC11. add water and the additives into the disperser in measured quantities as required</p> <p>PC12. load powder to water and additives in case of water base paint manufacture</p> <p>PC13. add the premixed raw materials to the disperser in case of solvent base paint manufacture</p> <p>PC14. ensure that the materials are added gradually and not dumped</p> <p>PC15. add zirconium beads to the sand mill to obtain light color</p> <p>PC16. add steel balls to ball mill to obtain dark colors</p> <p>PC17. check the loaded materials before grinding</p>
Knowledge and Understanding (K)	



PCS/N0502

Charge the materials into the dispersion machine

A. Organizational Context (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: KA1. company's policy and work instructions on quality standards, KA2. company's personnel management and incentives rules KA3. importance of the individual's role in the workflow KA4. reporting structure KA5. occupational health and safety standards
B. Technical Knowledge	The individual on the job needs to know and understand: KB1. paint production process KB2. types of paint products and their uses, e.g., water based, solvent based, industrial application, decorative application KB3. various kinds of raw materials involved in the process KB4. formulations for the particular batches KB5. use of raw materials such as powder, additives, solvents, resin, etc. KB6. pre mixing procedure and time duration for mixing KB7. types of dispersion, e.g., using mills or dispersion units KB8. mixing proportion of zirconium beads, steel balls, etc. KB9. loading procedure of the raw materials KB10. maintaining the equipments and machine for charging and grinding KB11. estimating the appropriate amount of mix material KB12. ensuring the stock of raw materials required KB13. safety standards and precautions to be taken KB14. quality standards to be maintained KB15. standard operating procedure KB16. market trend and customer preferences
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	The user/individual on the job needs to know and understand how: SA1. to read company's work instructions, customer requirement and quality policy SA2. to read instructions on use of dispersion machine and equipments for pre mixing and charging
	Writing Skills
	The user/individual on the job needs to know and understand how: SA3. to maintain the record of job completed as per company's policy
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. communicate with supervisor to report on any issues and understand the work order SA5. interact with other departments and team members to work efficiently
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how:



PCS/N0502

Charge the materials into the dispersion machine

	SB1. to select the right amount of solvents, additives, resin, etc. as required to charge and grind
	Plan and Organize
	The user/individual on the job needs to know and understand how:
	SB2. to schedule and plan for meeting the target
	SB3. to arrange for materials requirement
	Customer Centricity
	The user/individual on the job needs to know and understand how to:
	SB4. achieve the quality as required by the customer
	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB5. solve issues related to material, dispersion machine, etc.
	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB6. estimate the time taken for pre mixing, charging and grinding
	SB7. analyze the material requirement
	Critical Thinking
	The user/individual on the job needs to know and understand how to:
	SB8. spot process disruptions and delays



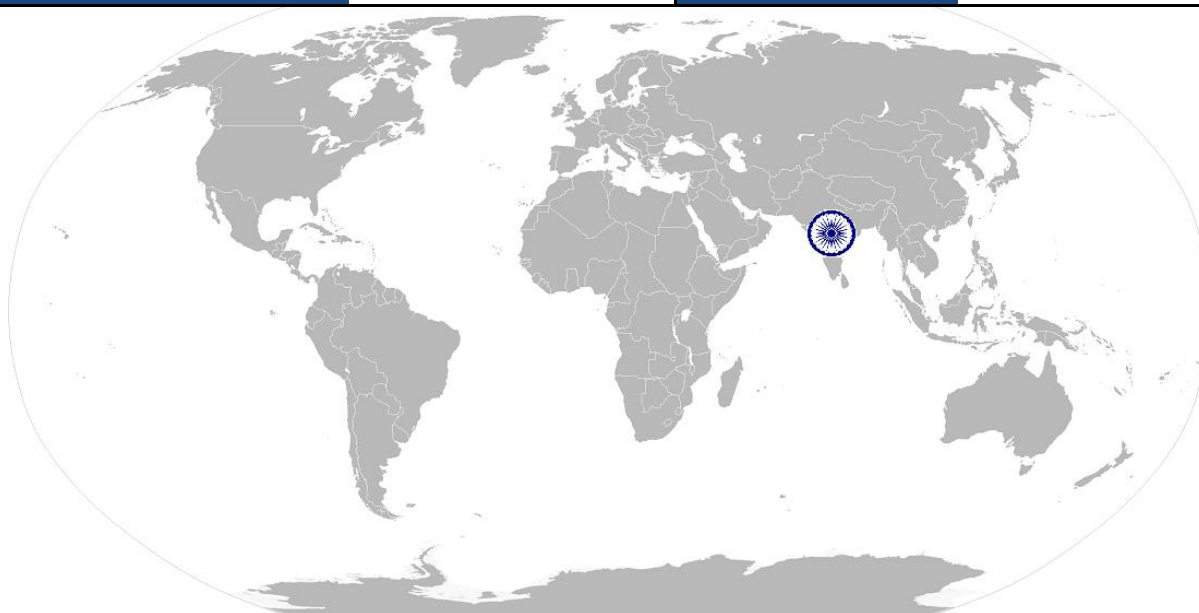


PCS/N0502

Charge the materials into the dispersion machine

NOS Version Control

NOS Code	PCS/N0502		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing	Last reviewed on	15/06/17
Occupation	Production – Liquid Paint	Next review date	30/06/19





PCS/N0503

Grind/ Disperse the materials in dispersion unit

National Occupational Standard



Overview

This unit is about operating different types of grinding mills or dispersion machine for grinding the raw materials as per company's standard operating procedure for the paint.



PCS/N0504

Grind/ Disperse the materials in dispersion unit

Unit Code	PCS/N0503
Unit Title (Task)	Grind/ Disperse the materials in dispersion unit
Description	This OS unit is about operating different types of grinding mills or dispersion machines for grinding the raw materials as per company's standard operating procedure.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Set up the machine for grinding Grind the raw materials Perform regular maintenance of the machine Achieve productivity and quality
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Setting up the machine for grinding	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. adjust the speed of the machine as per the disperser type used and the amount of mixture</p> <p>PC2. set the grind time at the disperser based on the requirement and quantity of mixture to be fed</p>
Grinding the raw materials	<p>To be competent, the user/ individual must be able to:</p> <p>PC3. use the specified machine for grinding such as sand mill, bead mill, ball mill, high speed dispersion machine, twin-shaft dispersion machine, etc.</p> <p>PC4. turn on the machine for grinding to begin</p> <p>PC5. operate the machine after confirming that the safety features for safe operation of the machine are in place</p> <p>PC6. process the materials in high speed disperser subjecting to high speed agitation or on other machines based on requirement and specified formulation</p> <p>PC7. use special additives where necessary, to enhance dispersion stability</p> <p>PC8. operate the machine for the required amount of time for grinding</p> <p>PC9. ensure awareness of the potential dangers involved with the disperser</p> <p>PC10. ensure that the pigment blends well into solvents</p> <p>PC11. ensure that the desired grinding level is achieved</p>
Performing regular maintenance of the machine	<p>To be competent, the user/ individual must be able to:</p> <p>PC12. ensure general maintenance and upkeep of the dispersion machine</p> <p>PC13. ensure that machines do not breakdown due to improper use or upkeep.</p> <p>PC14. perform regular cleaning process as prescribed by manufacturer</p>
Achieving productivity and quality	<p>To be competent, the user/ individual must be able to:</p> <p>PC15. ensure the manufactured paint provides a high viscosity and high solids mixture as per specification</p> <p>PC16. ensure that the established colour standard and quality are met</p> <p>PC17. ensure compliance to specified laboratory procedures for quality check</p> <p>PC18. ensure that the grinding is completed within the target time</p>

PCS/N0503

Grind/ Disperse the materials in dispersion unit

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The individual on the job needs to know and understand:</p> <p>KA1. company's policy and work instructions on quality standards,</p> <p>KA2. company's personnel management and incentives rules</p> <p>KA3. importance of the individual's role in the workflow</p> <p>KA4. reporting structure</p> <p>KA5. occupational health and safety standards</p>
B. Technical Knowledge	<p>The individual on the job needs to know and understand:</p> <p>KB1. paint manufacturing process</p> <p>KB2. types of paint products and their uses, e.g., water based, solvent based, industrial application, decorative application</p> <p>KB3. standard operating procedure for dispersion</p> <p>KB4. various kinds of raw materials involved in the process</p> <p>KB5. formulations for the particular batches</p> <p>KB6. raw materials for paint such as powder, additives, binders, thinners, etc.</p> <p>KB7. operation of sand mill, bead mill, ball mill, high speed dispersion machine, twin-shaft dispersion machine</p> <p>KB8. mixing proportion of zirconium beads, steel balls, etc.</p> <p>KB9. loading procedure of the raw materials</p> <p>KB10. procedures for maintaining the tools, equipment and machine for charging and grinding</p> <p>KB11. how to estimate the appropriate amount of mix material</p> <p>KB12. standard operating procedure</p> <p>KB13. in-house IT system for recording the job details</p> <p>KB14. how to check the stock of raw materials required</p> <p>KB15. safety standards and precautions to be taken</p> <p>KB16. quality standards to be maintained</p> <p>KB17. purpose of DCS and SCADA system for grinding in automated plant</p>
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	<p>The user/individual on the job needs to know and understand how:</p> <p>SA1. to read company's work instructions, customer requirement and quality policy</p> <p>SA2. to read instructions on use of dispersion machine and equipments for pre mixing and charging</p>
	Writing Skills
	<p>The user/individual on the job needs to know and understand how:</p> <p>SA3. to maintain the record of job completed as per company's policy</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. communicate with supervisor to report on any issues and understand the work order</p> <p>SA5. interact with other departments and team members to work efficiently</p>

PCS/N0503

Grind/ Disperse the materials in dispersion unit

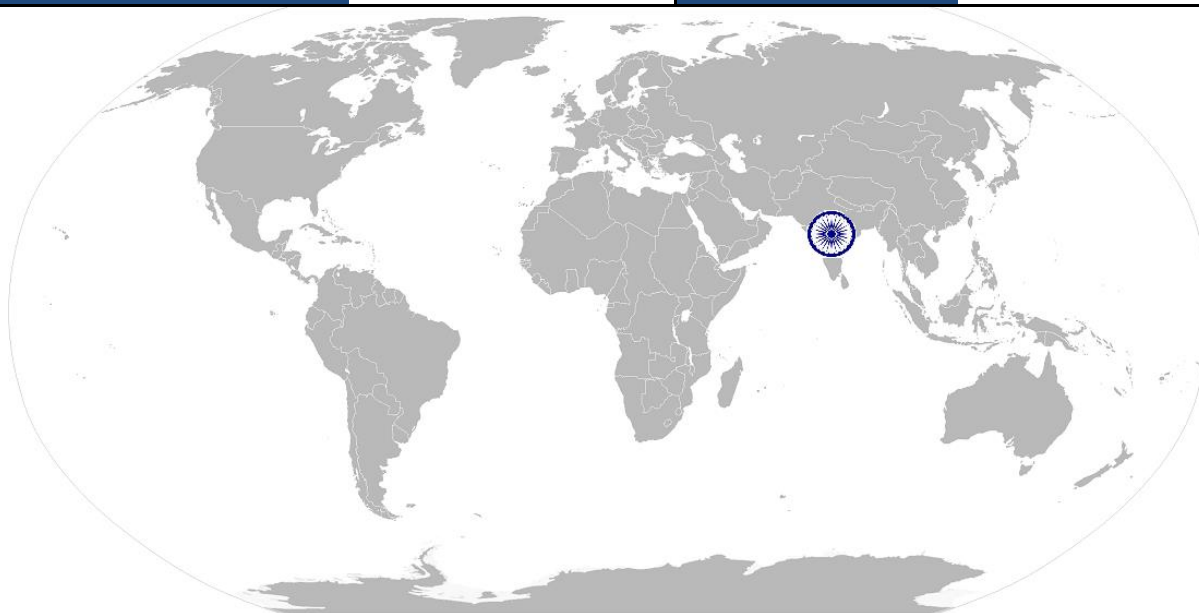
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how: SB1. to identify and measure the right amount of solvents, additives, resin, etc. as required to charge and grind
	Plan and Organize
	The user/individual on the job needs to know and understand how: SB2. to schedule and plan work and complete it within the given time, for meeting the target. SB3. to arrange for materials requirement
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB4. ensure the completion of work obtaining the required paint
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. solve issues related to material, dispersion machine, etc.
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB6. estimate the time taken for pre mixing, charging and grinding SB7. analyze the material requirement
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB8. spot process disruptions and delays

PCS/N0503

Grind/ Disperse the materials in dispersion unit

NOS Version Control

NOS Code	PCS/N0503		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing	Last reviewed on	15/06/17
Occupation	Production – Liquid Paint	Next review date	30/06/19





PCS/N0504

Mix the paint raw materials

National Occupational Standard



Overview

This unit is about mixing the paint ingredients after charging or grinding by adding emulsion, binder, additives, thinner and other raw materials in the recommended quantities and stages in order to obtain the viscosity and quality of the paint as per company's standards.

Unit Code	PCS /N0504
Unit Title (Task)	Mix the paint raw materials
Description	This OS unit is about mixing the paint ingredients after charging or grounding by adding emulsion, binder, additives, thinner and other raw materials in the recommended quantities and stages in order to obtain the viscosity and quality of the paint as per company's standards.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Understand the work requirement Mix the paint ingredients Take adequate safety measures Achieve productivity and quality standards
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Understanding the work requirement	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. receive work instruction and formulation details from the supervisor</p> <p>PC2. understand the job sheet for the requirement and target for batch completion</p>
Mixing the paint ingredients	<p>To be competent, the user/ individual must be able to:</p> <p>PC3. confirm the inline quality check result from QC after dispersion process</p> <p>PC4. transfer the paint to mixer after dispersion or monitor its transfer to dispersion in an automated plant</p> <p>PC5. measure the quantity of paint in the mixer</p> <p>PC6. mix with recommended quantity of binder or thinner</p> <p>PC7. send sample for inline quality clearance</p> <p>PC8. after QC clearance, add emulsion, additives, binder, thinner, etc., to the paint as per the recommended formulation</p> <p>PC9. maintain schedule of recommended time, weight, frequency of addition</p> <p>PC10. filter and remove the sand particles as recommended</p> <p>PC11. send for quality check, especially, viscosity of the paint after thinning</p> <p>PC12. ensure the consistent batch quality of paint by adhering to the SOP</p>
Taking adequate safety measures	<p>To be competent, the user/ individual must be able to:</p> <p>PC13. read and comprehend the safety manuals prescribed by the company</p> <p>PC14. wear appropriate protective gears such as gloves and masks while using the materials for thinning</p> <p>PC15. ensure complete compliance with the safety procedures of the company</p>
Achieving productivity and quality standards	<p>To be competent, the user/ individual must be able to:</p> <p>PC16. achieve the specified consistency per batch</p> <p>PC17. ensure that the viscosity, colour, and chemical properties of the paint are as per requirement</p> <p>PC18. achieve the targets specified in the job sheet</p>
Knowledge and Understanding (K)	



PCS/N0504

Mix the paint raw materials

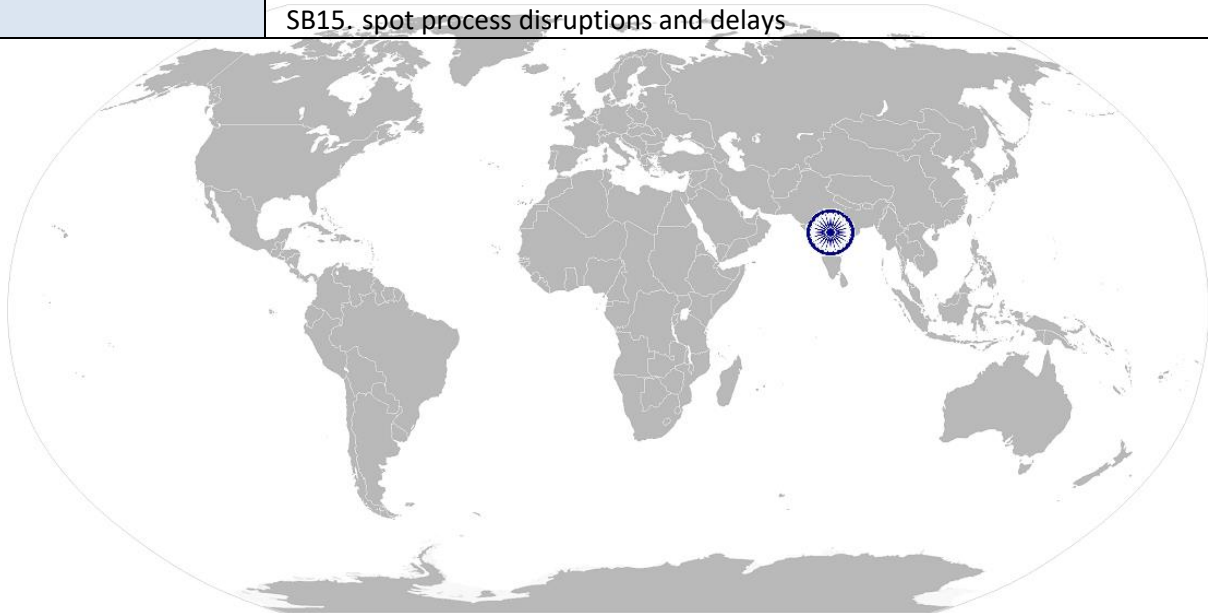
A. Organizational Context (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: KA1. company's policy and work instructions on quality standards, KA2. company's personnel management and incentives rules KA3. importance of the individual's role in the workflow KA4. reporting structure KA5. occupational health and safety standards
B. Technical Knowledge	The individual on the job needs to know and understand: KB6. different types of paints, e.g. liquid, powder, industrial, decorative KB7. uses of paints on different surfaces, e.g., industrial, decorative, protective KB8. base paint versus pigmented paint KB9. different types of undercoats that can be used for a paint KB10. paint manufacturing process for water and solvent based paints KB11. raw materials used in different types of paints, their purpose and chemical properties KB12. standard operating procedure for mixing KB13. quality parameters of paint and types of inline and finished paint quality tests KB14. methods for measuring the paint quantity KB15. equipment used for testing paint quality and tolerances recommended KB16. how to check for adequacy of stock of raw materials before starting the batch KB17. safety standards and precautions to be taken, e.g., to prevent hazards in charging KB18. quality standards to be maintained KB19. purpose of DCS and SCADA systems to control mixing process in an automated plant
Skills (S)	
C. Core Skills/ Generic Skills	Reading Skills
	The user/individual on the job needs to know and understand how: SA6. to read company's work instructions, customer requirement and quality policy SA7. to read instructions on use of binders, emulsion, thinner, additives, etc.
	Writing Skills
	The user/individual on the job needs to know and understand how: SA8. to maintain the record of job completed as per company's policy
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA9. communicate with supervisor to report on any issues and understand the work order SA10. interact with other departments and team members to work efficiently
D. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how: SB9. to select the right amount of emulsion, additives, solvents, thinner, etc. as required to obtain the desired paint type
	Plan and Organize



PCS/N0504

Mix the paint raw materials

	The user/individual on the job needs to know and understand how: SB10. to schedule and plan for meeting the target SB11. to arrange for the materials required
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB12. ensure the completion of work achieving the quality desired by the customer
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB13. solve issues related to material mixing and obtaining the desired type of paint
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB14. estimate the time taken for mixing and thinning
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB15. spot process disruptions and delays



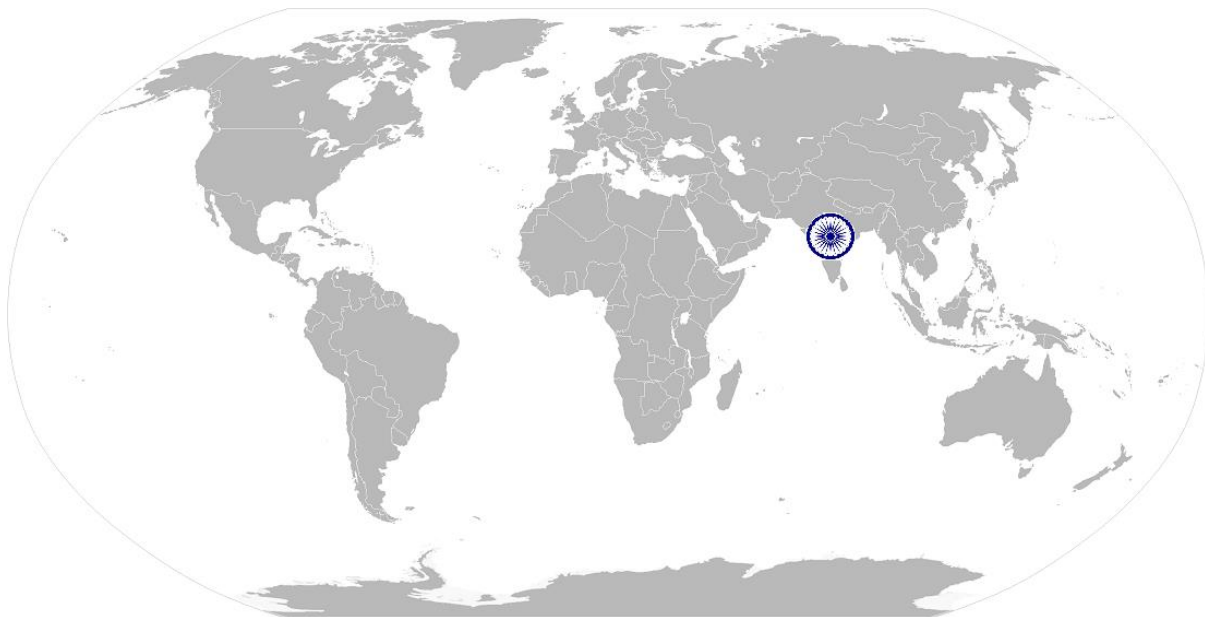


PCS/N0504

Mix the paint raw materials

NOS Version Control

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Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing	Last reviewed on	15/06/17
Occupation	Production – Liquid Paint	Next review date	30/06/19





National Occupational Standard



Overview

This unit is about communicating effectively with superiors, colleagues and customers to achieve a smooth workflow.

PCS/N9901

Coordinate with colleagues and/ or customers

National Occupational Standard

Unit Code	PCS/N9901
Unit Title (Task)	Coordinate with colleagues and/or customers
Description	This OS unit is about communicating effectively with superiors, colleagues and customer to achieve a smooth workflow
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Interact with superior • Communicate with colleagues • Communicate effectively with customers, if required
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Interacting with superior	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. receive job order and instructions from reporting superior</p> <p>PC2. understand the work output requirements, targets, performance indicators and incentives</p> <p>PC3. deliver quality work on time and report any anticipated reasons for delays</p> <p>PC4. escalate unresolved problems or complaints to the relevant senior</p> <p>PC5. communicate maintenance and repair schedule proactively to the superior</p> <p>PC6. receive feedback on work standards</p> <p>PC7. document the completed work schedule and handover to the superior</p>
Communicating with colleagues	<p>To be competent, the user/ individual must be able to:</p> <p>PC8. exhibit trust, support and respect to all the colleagues in the workplace</p> <p>PC9. aim to achieve smooth workflow</p> <p>PC10. help and assist colleagues with information and knowledge</p> <p>PC11. seek assistance from the colleagues when required</p> <p>PC12. identify the potential and existing conflicts with the colleagues and resolve</p> <p>PC13. pass on essential information to other colleagues on timely basis</p> <p>PC14. maintain the etiquette, use polite language, demonstrate responsible and disciplined behaviors to the colleagues</p> <p>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</p> <p>PC16. put team over individual goals and multi task or share work where necessary supporting the colleagues</p> <p>PC17. highlight any errors of colleagues, help to rectify and ensure quality output</p> <p>PC18. work with cooperation, coordination, communication and collaboration, with shared goals and supporting each others performance</p>
Communicating effectively with customers, if required	<p>To be competent, the user/ individual must be able to:</p> <p>PC19. ask more questions to the customers and identify their needs</p> <p>PC20. possess strong knowledge on the product, services and market</p> <p>PC21. brief the customers clearly on potential costs and hazards</p> <p>PC22. communicate with the customers in a polite, professional and friendly manner</p> <p>PC23. build effective but impersonal relationship with the customers</p>

PCS/N9901

Coordinate with colleagues and/ or customers

	<p>PC24. ensure the appropriate language and tone are used with customers</p> <p>PC25. listen actively and have a two way communication</p> <p>PC26. be sensitive to the gender, cultural and social differences such as modes of greeting, formality, etc.</p> <p>PC27. understand the customer expectations correctly and provide the appropriate products and services</p> <p>PC28. understand the customer dissatisfaction and address or escalate their complaints effectively</p> <p>PC29. maintain a positive, sensible and cooperative manner all time</p> <p>PC30. ensure to maintain a proper body language, dress code, gestures and etiquettes towards the customers</p> <p>PC31. avoid interrupting the customers while they talk</p> <p>PC32. ensure to avoid negative questions and statements to the customers</p> <p>PC33. inform the customers on any issues or problems before hand and also on the developments involving them</p> <p>PC34. ensure to respond back to the customer immediately for their voice messages, e-mails, apps, etc.</p> <p>PC35. develop good rapport with the customers and promote other products and services</p> <p>PC36. seek feedback from the customers on their understanding to what was discussed</p> <p>PC37. explain the terms and conditions clearly</p>
Knowledge and Understanding (K)	
<p>A. Organizational</p> <p>Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on personnel management, effective team work at workplace</p> <p>KA2. company's HR policies</p> <p>KA3. company's reporting structure</p> <p>KA4. company's documentation policy</p> <p>KA5. company's customer profile</p> <p>KA6. occupational health and safety standards</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. methods for effective communication with various categories of people and the different departments in the organization</p> <p>KB2. significance of team coordination and productivity targets of the organisation</p> <p>KB3. how to record the job activity as required on various types of documents?</p> <p>KB4. how to use computer or smartphone to communicate effectively and productively?</p> <p>KB5. significance of helping colleagues with specific issues and problems</p> <p>KB6. importance of meeting quality and time standards as a team</p> <p>KB7. how to practice effective listening and talking</p> <p>KB8. effective use of voice tone and pitch for communication</p> <p>KB9. how to demonstrate ethics and convey discipline to the customers?</p>

PCS/N9901

Coordinate with colleagues and/ or customers

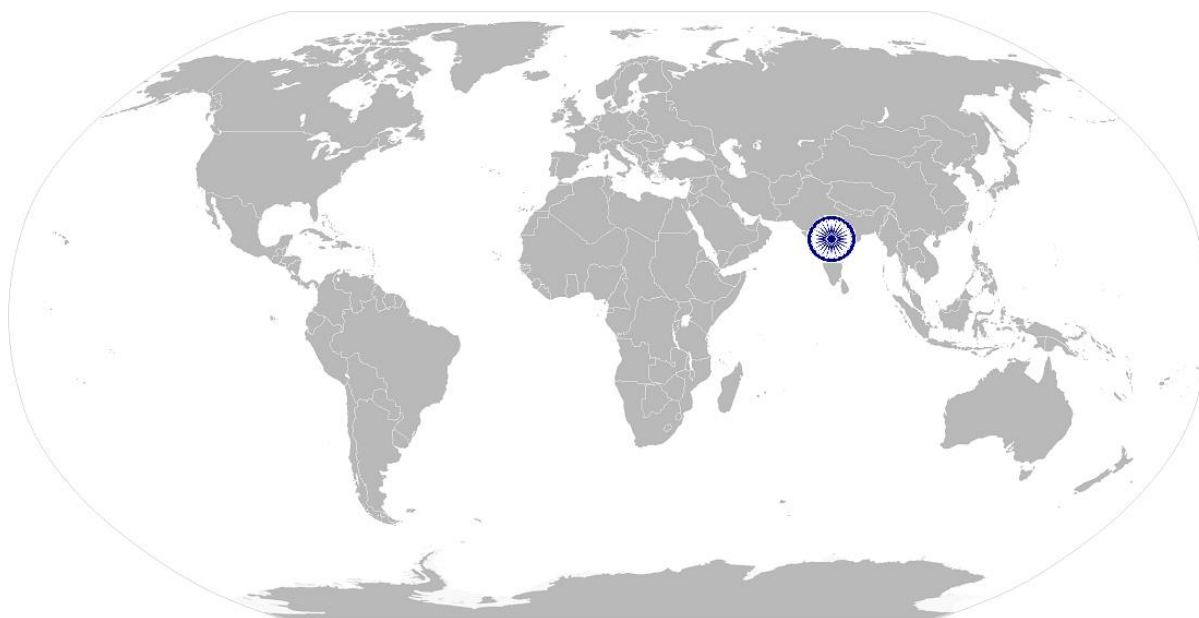
	KB10. how to build effective working relationship with mutual trust and respect within the team KB11. importance of dealing with grievances effectively and in time
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA1. read job sheets, company policy documents and information displayed at the workplace SA2. read notes/comments from the supervisor
	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA3. fill up documentation pertaining to job requirement
	Oral Communication (Listening and Speaking skills)
	The user/ individual on the job needs to know and understand how to: SA4. interact with team members to work efficiently SA5. communicate effectively with superior to achieve smooth workflow SA6. communicate effectively with the customers to build a good rapport with them SA7. use language that the customer or colleague understands SA8. use the communications systems of the company, e.g., telephone, fax, public announcement systems SA9. E-mail and use Internet for communicating SA10. use of audio-visual aids to communicate complex issues
	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. spot and communicate potential areas of disruptions to work process and report the same SB2. report to supervisor and deal with a colleague individually, depending on the type of concern
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB3. plan communication strategy in order to avoid conflicts and work disruption
B. Professional Skills	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB4. practice patient listening, careful talking and paraphrasing in order to avoid misunderstanding
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB5. coordinate with different departments and multi-task as necessary SB6. contribute to quality of team work and achieve smooth workflow SB7. share work load as required



PCS/N9901

Coordinate with colleagues and/ or customers

	SB8. delegate work in consultation with superior or as necessary instead of allowing work to pile up
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB9. resolve recurring inter-personal conflicts by clear and two-way dialogue
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB10. improve work processes by interacting with others and adopting best practices



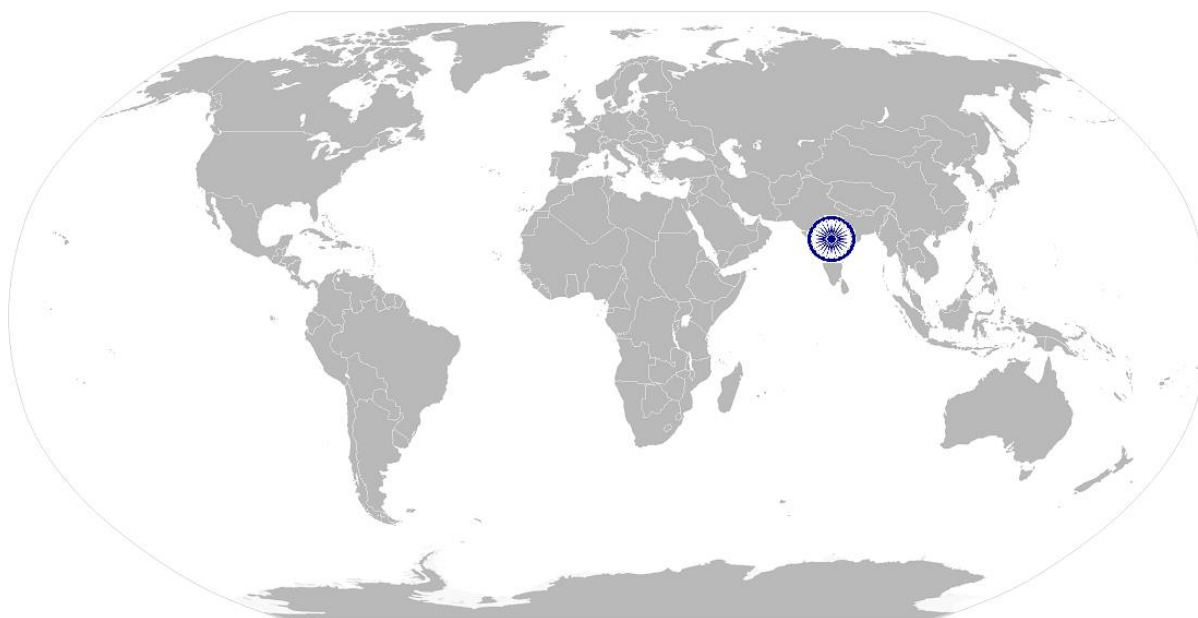


PCS/N9901

Coordinate with colleagues and/ or customers

NOS Version Control

NOS Code	PCS/N9901		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing and Application	Last reviewed on	31/03/16
Occupation	Production – Liquid Paint	Next review date	31/03/18

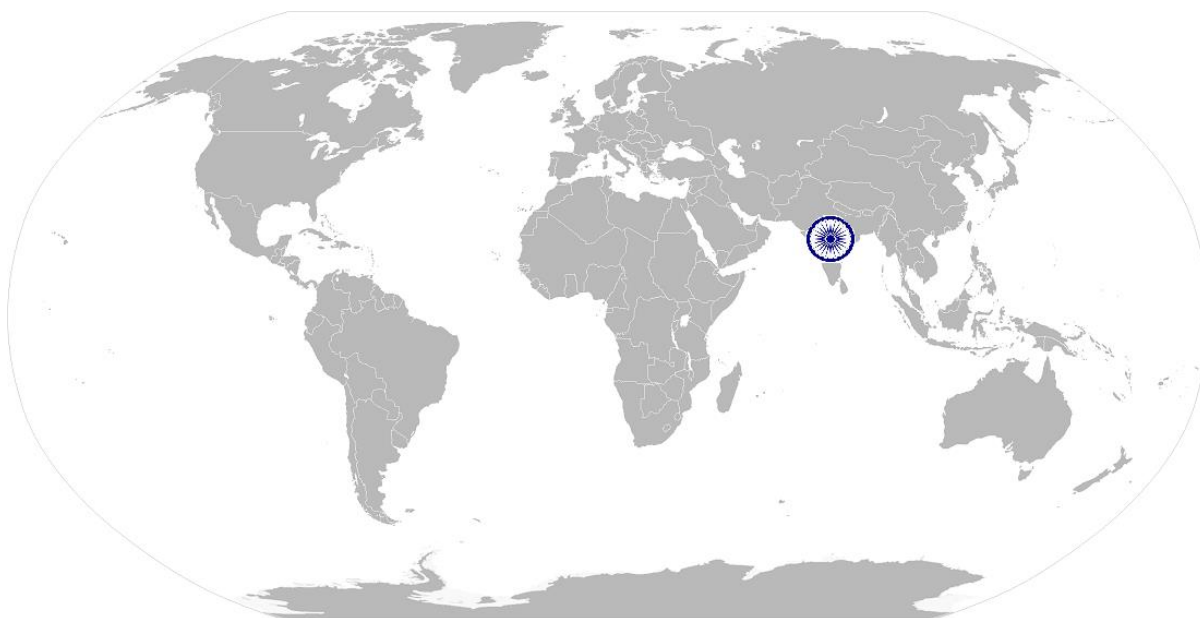




PCS/N9902

Maintain standards of product/ service quality

National Occupational Standard



Overview

This unit is about understanding accepted levels of standards of product quality or customer service and executing the designated work in a manner that results in 100% satisfaction.

PCS/N9902

Maintain standards of product/service quality

National Occupational Standard

Unit Code	PCS/N9902
Unit Title (Task)	Maintain standards of product/ service quality
Description	This OS unit is about understanding accepted levels of standards of product quality or customer service and executing the designated work in a manner that results in 100% satisfaction.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Engage with superior or customers to understand their product/service quality requirements Achieve 100% satisfaction for given quality Work to fulfil end-customers's expectations
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Engaging with superior or customers to understand product/ service quality requirements	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. keep in mind the profiles of expected customers</p> <p>PC2. understand the target customers and their product/ service quality requirements as defined by the company</p> <p>PC3. receive superior's/ customer feedback from regularly</p> <p>PC4. aim to build a good connect with the customers through quality product/ service</p> <p>PC5. keep tab on frequent discussions with regular customers on general likes and dislikes in the market, latest trends, customer expectations, etc.</p> <p>PC6. receive updates on regular feedbacks from the clients on current service, complaints, and improvements to be made, etc.</p> <p>PC7. if necessary, compulsively seek customer rating of product/ service in order to help develop a set of regularly improved procedures</p> <p>PC8. demonstrate quality orientation at all level</p> <p>PC9. aim to gain their long lasting loyalty through satisfaction</p>
Achieving 100% customer satisfaction for given quality	<p>To be competent, the user/ individual must be able to:</p> <p>PC10. ensure 100% customer satisfaction via product/ service quality</p> <p>PC11. treat the customers fairly and with due respect</p> <p>PC12. focus on executing company's marketing strategies and product development needs</p> <p>PC13. focus on enhancing brand value of company by maintaining or enhancing quality standards</p>
Fulfilling customer requirement	<p>To be competent, the user/ individual must be able to:</p> <p>PC14. ensure that customer expectations are met</p> <p>PC15. learn to read customers' needs and wants</p> <p>PC16. willingly accept and implement new and innovative products and services that help improve customer satisfaction</p> <p>PC17. communicate feedback of customer to senior, especially, the negative feedback</p> <p>PC18. maintain close contact with the customers and focus groups</p>

PCS/N9902

Maintain standards of product/ service quality

	<p>PC19. offer promotions to improve product satisfaction level to the customers periodically</p> <p>PC20. weigh the cost of fulfilling unscheduled customer requests, consult with senior and advise the customer on alternatives</p>
Knowledge and Understanding (K)	
<p>A. Organizational</p> <p>Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's quality standards policy</p> <p>KA2. company's HR policies</p> <p>KA3. company's reporting structure</p> <p>KA4. company's documentation policy for quality compliance</p> <p>KA5. company's end-customer profile</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. significance of maintaining or enhancing company's quality standards</p> <p>KB2. significance of treating the customers with respect and professional way</p> <p>KB3. different types of parameters tested for quality</p> <p>KB4. test pass/ fail criteria and acceptable tolerance levels</p> <p>KB5. equipment used for quality tests</p> <p>KB6. importance of gaining customer loyalty</p> <p>KB7. methods of engaging with the customers effectively and professionally, for customer facing activities</p> <p>KB8. ways to improve company's customer satisfaction rating</p> <p>KB9. prevailing market standards of customer satisfaction</p> <p>KB10. standard operating procedure (SOP)</p> <p>KB11. the variety of common and unscheduled requests to expect in customer facing activities</p> <p>KB12. significance of being transparent and courteous under all circumstances involving customer interaction without losing composure</p>
Skills (S)	
<p>A. Core Skills/ Generic Skills</p>	<p>Reading Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. read job sheets, company policy documents and information displayed at the workplace about quality standards</p> <p>SA2. read notes/comments from the supervisor</p>
	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. fill up documentation pertaining to one's role in customer satisfaction</p>
	<p>Oral Communication (Listening and Speaking skills)</p>



PCS/N9902

Maintain standards of product/ service quality

	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. interact with team members to achieve quality standards</p> <p>SA5. communicate effectively with customers in field jobs</p> <p>SA6. engage with customer to understand their expectations in field jobs</p> <p>SA7. company standards and effectiveness improvements pattern</p> <p>SA8. resolve customer's concerns satisfactorily within timeframe stipulated by the company or as agreed with customer or colleague</p> <p>SA9. use Internet for updating on current quality related practices</p> <p>SA10. use of audio-visual aids to communicate recurring quality concerns</p>
B. Professional Skills	Decision Making
	<p>The user/ individual on the job needs to know and understand:</p> <p>SB1. how to spot and when to report potential areas of recurring quality concerns</p> <p>SB2. how to address the complaints and handle the dissatisfied the customers</p>
	Plan and Organize
	<p>The user/ individual on the job needs to know and understand:</p> <p>SB3. how to plan workflow to achieve/ deliver 100% quality in the given time and with given equipment</p>
	Customer Centricity
	<p>The user/ individual on the job needs to know and understand:</p> <p>SB4. how to earn full customer loyalty</p>
	Problem Solving
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB5. coordinate with different departments in order to service the customer better</p> <p>SB6. contribute to quality of team work and achieve smooth workflow</p> <p>SB7. share work load as required</p>
	Analytical Thinking
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB8. communicate new product quality standards to different stakeholders in the market and train colleagues for quality, if required</p>
	Critical Thinking
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB9. improve work processes by interacting with customers and adopting best practices</p> <p>SB10. resolve recurring inter-personal or system related conflicts with colleagues that hinder customer service</p> <p>SB11. act upon constructively on any problems as pointed by customers</p> <p>SB12. handle personality clashes effectively</p>

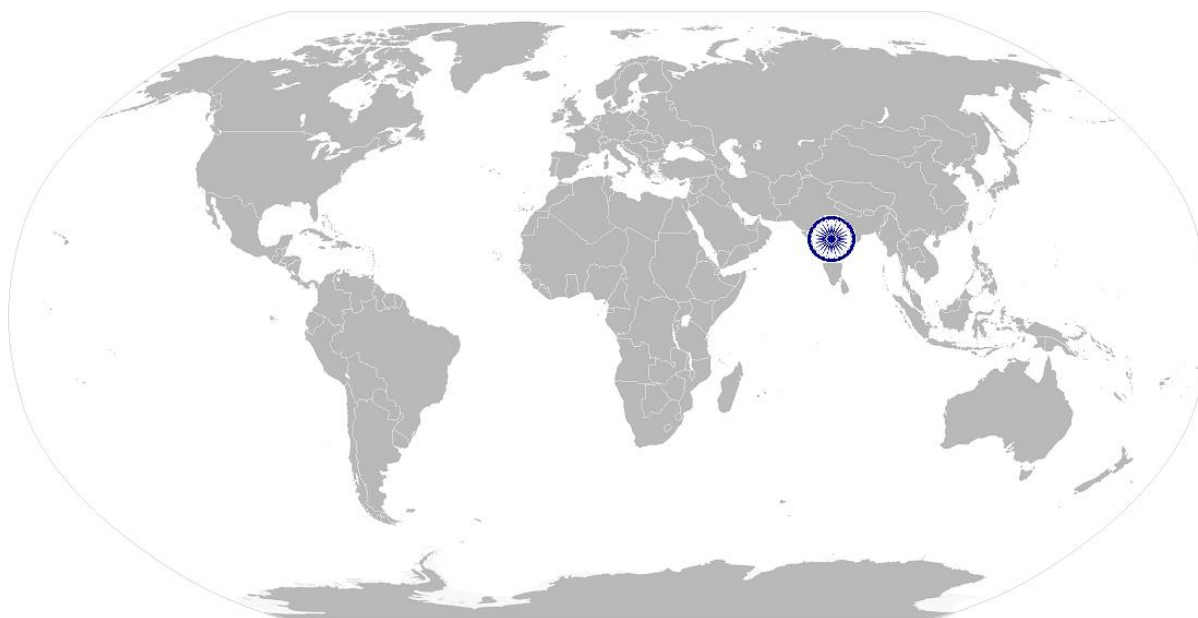


PCS/N9902

Maintain standards of product/ service quality

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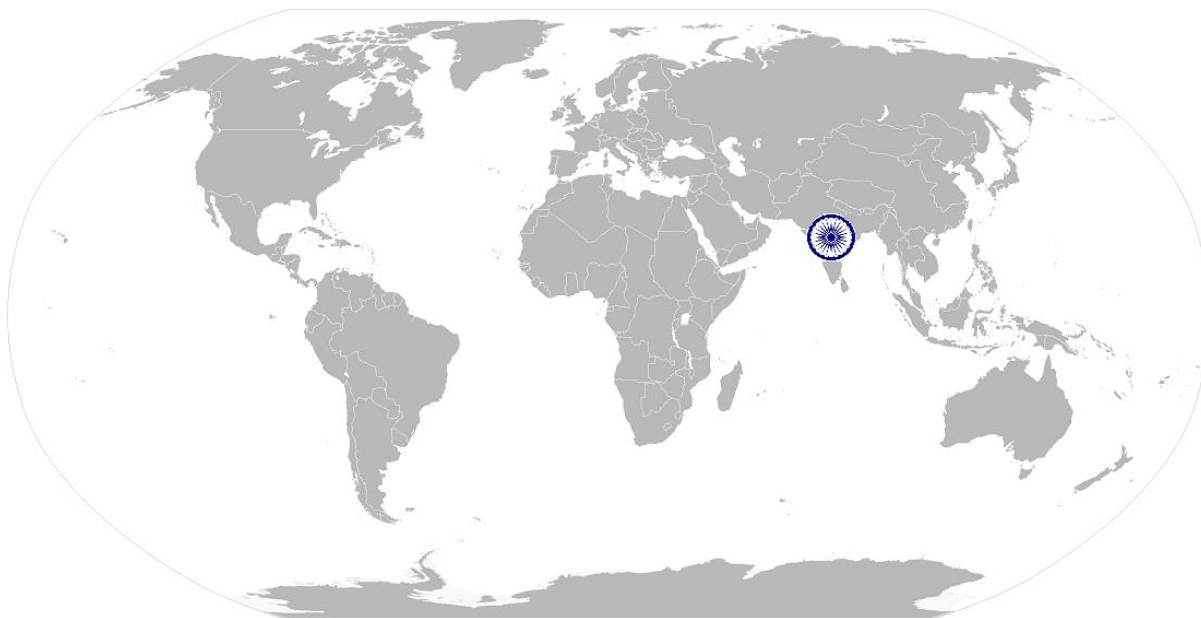
NOS Code	PCS/N9902		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing and Application	Last reviewed on	31/03/16
Occupation	Production – Liquid Paint	Next review date	31/03/18





PCS/N9903 Maintain OH&S standards and follow environmental norms

National Occupational Standard



Overview

This unit is about complying with workplace health, hygiene, safety and environmental standards to have a hazard-free environment and avoid downtime. It is also about following government laid norms for waste treatment and disposal.

PCS/N9903

Maintain OH&S standards and follow environmental norms

National Occupational Standard

Unit Code	PCS/N9903
Unit Title (Task)	Maintain OH&S standards and follow environmental norms
Description	This OS unit is about complying with workplace health, hygiene, safety and environmental standards to have a hazard-free environment and avoid downtime. It is also about following government laid norms for waste treatment and disposal
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Take precautionary measures to avoid work hazards and environmental damage • Follow standard health, safety and environmental policies and procedures • Use safety tools and/ or personal protective equipment • Achieve health, safety and environmental standards
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Taking precautionary measures to avoid health, safety and environmental hazards	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. assess the various health, safety and environmental hazards in the work areas</p> <p>PC2. take necessary steps to eliminate or minimize the hazards</p> <p>PC3. analyze the causes of accidents at the workplace</p> <p>PC4. suggest measures to prevent such accidents from taking place</p> <p>PC5. take preventive measures to avoid risk of burns and other injury due to contact with hot surfaces, gas, fire, hot fluids/ liquids, etc.</p> <p>PC6. suggest methods to improve the existing safety procedures at the workplace</p> <p>PC7. dispose waste in the designated areas safely as per company's policies and rules</p> <p>PC8. maintain appropriate ventilation in the rooms while there is more exposure to paint vapours</p> <p>PC9. avoid dumping unused cans to safeguard the environment</p>
Following standard health, safety and environmental policies and procedure	<p>To be competent, the user/individual must be able to:</p> <p>PC10. be aware of the locations of fire extinguishers, emergency exits, etc.</p> <p>PC11. practice correct emergency procedures</p> <p>PC12. check and review the storage areas frequently</p> <p>PC13. stack items in an organized way and use safe lifting techniques to reduce risk of injuries from handling procedures at the storage areas</p> <p>PC14. ensure to be safe while handling materials, tools, acids, chemicals, equipment, etc.</p> <p>PC15. store the chemicals and acids in a well-ventilated and locked areas with warning signs displayed</p> <p>PC16. ensure safe techniques while moving furniture and fixtures</p> <p>PC17. ensure to reduce risk of injury from use of electrical tools</p> <p>PC18. read the manufacturer's manual carefully before use of any equipment</p> <p>PC19. unplug the electrical equipment before performing maintenance</p> <p>PC20. keep the floors free from oil, water and grease to avoid slippery surface</p> <p>PC21. use rubber mats in the places where floors are constantly wet</p> <p>PC22. ensure safety from injuries of cuts to loss of fingers, while handling sharp</p>

PCS/N9903

Maintain OH&S standards and follow environmental norms

	<p>hazardous tools and equipment</p> <p>PC23. use flat surfaces, secure holding and protective wear while using such sharp tools</p> <p>PC24. use health, safety and environmental protection practices for storing, cleaning, and maintaining tools, equipment, and supplies</p> <p>PC25. practice ergonomic lifting, bending, or moving equipment and supplies</p> <p>PC26. identify the requirement for maintaining environmental norms</p> <p>PC27. comply with the environmental safety norms while on work to prevent accidents and health hazards</p> <p>PC28. follow company policies and rules regarding use of hazardous materials to avoid health, safety and environmental impacts caused by them</p>
Using safety tools or Personal Protective Equipment	<p>To be competent, the user/individual must be able to:</p> <p>PC29. ensure the employees have access to first aid kit when needed</p> <p>PC30. ensure all equipment and tools are stored and maintained properly and safe to use</p> <p>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</p> <p>PC32. ensure to display safety signs at places where necessary for people to be cautious</p> <p>PC33. ensure electrical precautions such as insulated clothing, adequate equipment insulation, dry work area, switch off the power supply when not required, etc.</p> <p>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.</p>
Achieving health, safety and environmental standards	<p>To be competent, the user/individual must be able to:</p> <p>PC35. document all the first aid treatments, inspections, etc., conducted to keep track of the safety measures undertaken</p> <p>PC36. document all the environmental hazards caused and the measures undertaken to comply with the established safety procedures of the workplace</p> <p>PC37. report to the supervisor on any problems and hazards identified and any breach of environmental procedures.</p> <p>PC38. ensure zero accident at workplace</p> <p>PC39. adhere to safety standards and ensure no material damage</p> <p>PC40. take necessary action and correct any environmental hazards caused</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The individual on the job needs to know and understand:</p> <p>KA1. company's policies on health, safety and environmental procedures at the workplace</p> <p>KA2. company's reporting structure</p> <p>KA3. company's documentation policy</p> <p>KA4. occupational health, safety and environmental standards.</p>

PCS/N9903

Maintain OH&S standards and follow environmental norms

B. Technical Knowledge	<p>The individual on the job needs to know and understand:</p> <p>KB1. the purpose and usage of protective gears such as gloves , protective goggles, masks, etc. while working</p> <p>KB2. use of first aid at workplace</p> <p>KB3. significance of accidental risks to the worker and productivity loss</p> <p>KB4. reporting procedure or heirarchy for signs of damage and potential hazards</p> <p>KB5. methods to minimize accidental risks</p> <p>KB6. safe handling of chemicals, acids, etc. for cleaning</p> <p>KB7. material handling procedure</p> <p>KB8. standard operating procedure for safety drills and equipment maintenance</p> <p>KB9. precautionary activities to be followed for work place safety</p> <p>KB10. operation of tools and electrical equipment</p> <p>KB11. emergency procedures to be followed in case of an mishap such as fire, accidents, etc.</p> <p>KB12. government and company's environmental norms</p> <p>KB13. solid, liquid and gaseous waste disposal, treatment norms and equipment</p> <p>KB14. necessary action to be taken for the hazards identified</p> <p>KB15. methods to minimize environmental hazards</p> <p>KB16. precautionary activities to be followed to minimize environmental impacts</p>
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. read and interpret the relevant organisation policies, procedures and diagrams that identify health, safety and safe environmental practices.</p> <p>SA2. read job sheets, company policy documents and information displayed at the workplace for health, safety and environment.</p> <p>SA3. read notes/comments from the supervisor</p>
	Writing Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. fill up documentation related to health, safety and environmental standards, if required</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. verbally report health, safety and environmental hazards and poor organisation practice.</p> <p>SA6. communicate to the supervisor about the work health, safety and environmental issues</p> <p>SA7. receive instructions from supervisor on minimizing the risks</p> <p>SA8. communicate with co-workers about the precautions to be taken for hazards free work</p>

PCS/N9903

Maintain OH&S standards and follow environmental norms

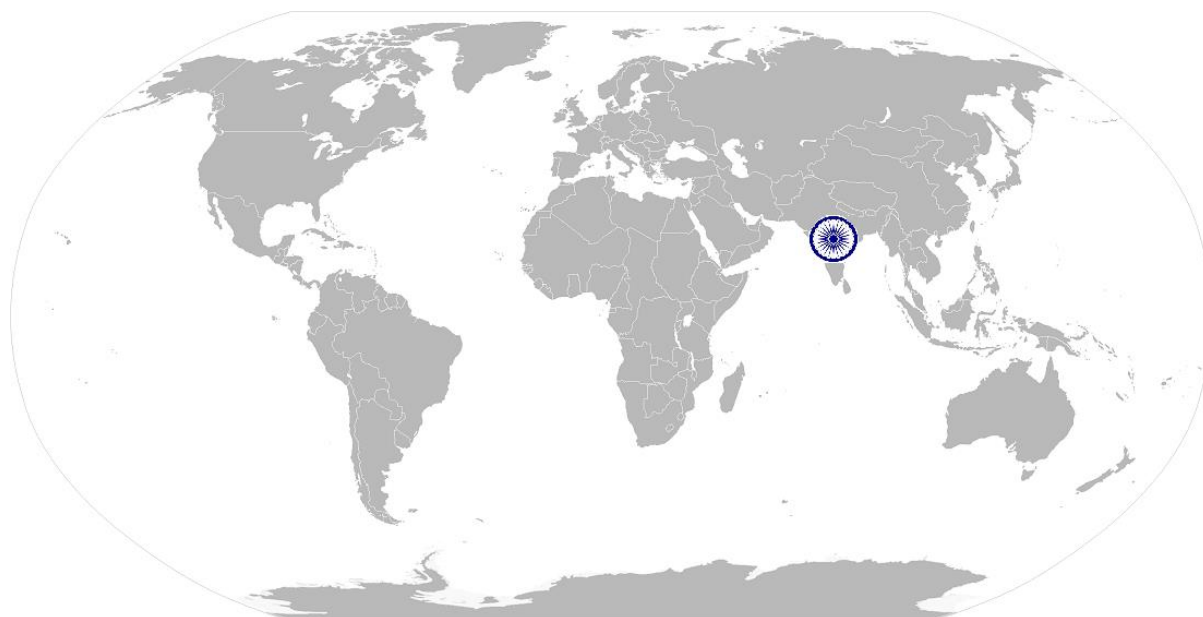
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. take preventive measures for the identified hazards
	SB2. select appropriate hand tools and personal protection equipment
	SB3. identify first aid needs in case of an injury
	Plan and Organize
	The user/individual on the job needs to know and understand how to:
	SB4. incorporate elements of health, safety and environment in daily work practices
	Customer Centricity
	The user/ individual on the job needs to know and understand how to:
	SB5. ensure targeted product/ service delivery by practicing stipulated standards of occupational health safety and environmental measures
	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB6. take care of personal and equipment protection
	SB7. identify the hazards and suggest possible solutions
	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB8. use safety equipment such as fire extinguisher during fire accidents
	SB9. store chemicals and tools in a safe way
	SB10. use tools and equipment without causing any injury to fellow workers
	SB11. analyse the seriousness of the hazards
	Critical Thinking
	The user/individual on the job needs to know and understand how to:
	SB12. evolve smooth workflow by avoiding hazards at workplace
	SB13. evaluate and apply the possible solutions for the hazards, as necessary



PCS/N9903 Maintain OH&S standards and follow environmental norms

NOS Version Control

NOS Code	PCS/N9903		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing and Application	Last reviewed on	31/03/16
Occupation	Production – Liquid Paint	Next review date	31/03/18

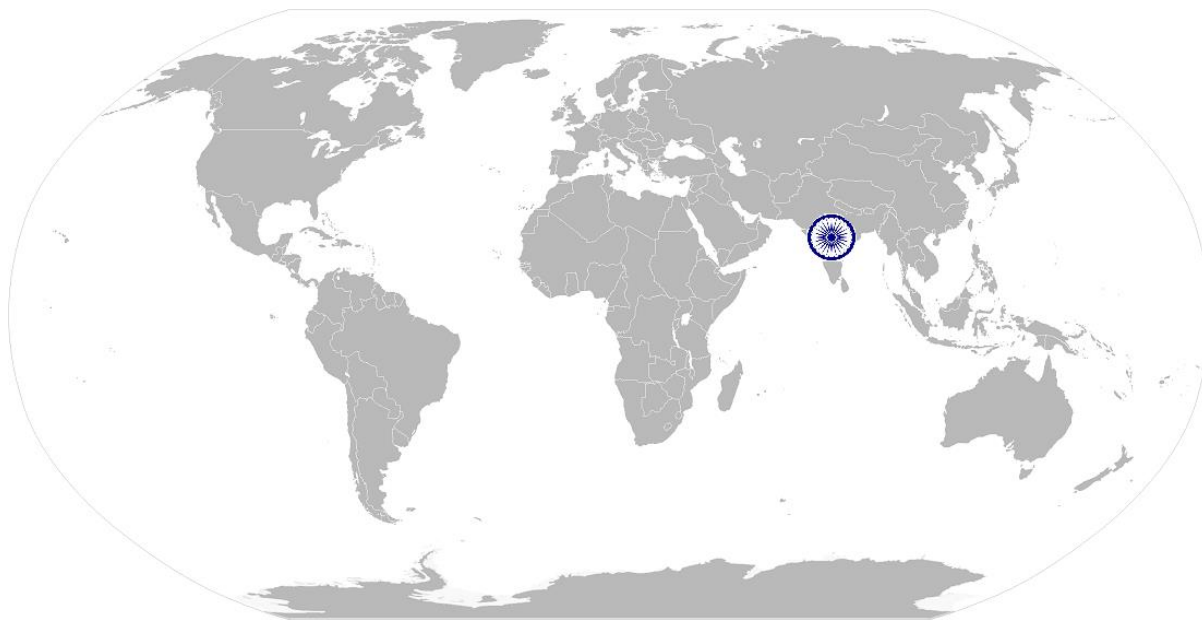




PCS/N9904

Maintain IPR of organisation and customer

National Occupational Standard



Overview

This unit is about securing intellectual property rights (IPR) of the employee's organisation and respecting customer's copyright.

PCS/N9904

Maintain IPR of organisation and customer

Unit Code	PCS/N9904
Unit Title (Task)	Maintain IPR of organisation and customer
Description	This OS unit is about securing intellectual property rights (IPR) of the employee's organisation and respecting customer's copyright
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Secure company's IPR Respect customers copyright
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Securing company's IPR	<p>To be competent, the user/ individual must be able to:</p> <p>PC1. prevent leak of new plans and designs to competitors by reporting on time</p> <p>PC2. be aware of any of company's product or design patents</p> <p>PC3. report IPR violations observed in the market, to supervisor or company head</p>
Respecting customer's copyright	<p>To be competent, the user/ individual must be able to:</p> <p>PC4. read copyright clause of the material published on the internet and any other printed material</p> <p>PC5. protect infringement upon customer's business or design plans</p> <p>PC6. consult supervisor or senior management when in doubt about using information available from customer</p> <p>PC7. report any infringement observed by anyone in the company</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on intellectual property rights and infringement reporting policy</p> <p>KA2. company's HR policies</p> <p>KA3. company's reporting structure</p> <p>KA4. company's documentation policy</p> <p>KA5. company's customer profile</p> <p>KA6. occupational health and safety standards</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. patents and IPR laws</p> <p>KB2. how IPR protection is important for competitiveness of a company</p> <p>KB3. significance of damages resulting from IPR infringement</p> <p>KB4. industrial and political espionages</p>
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	<p>The user/ individual on the job needs to know and understand:</p> <p>SA1. read job sheets, company policy documents and information displayed at the workplace on IPR</p>

PCS/N9904

Maintain IPR of organisation and customer

	SA2. read notes/comments from the supervisor
	Writing Skills
	The user/ individual on the job needs to know and understand: SA3. fill up documentation pertaining to one's role in protecting IPR infringement
	Oral Communication (Listening and Speaking skills)
	The user/ individual on the job needs to know and understand how to: SA4. interact with team members to work efficiently SA5. communicate effectively with the customers about IPR protection and building trust
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. identify IPR related issues
	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB2. prevent information leaks SB3. Avoid being caught up in copyright issues
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB4. inform superior about any copyright infringement
	Problem Solving
	NA
	Analytical Thinking
	The user/ individual on the job needs to know and understand: SB5. basics of what constitutes IPR violations under WTO agreement SB6. penalties to company or individual on evidence of IPR violations SB7. likely effect of IPR violation on customer
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. improve work IPR related safety and adopting best practices SB9. resolve conflicts related to IPR by reporting in time

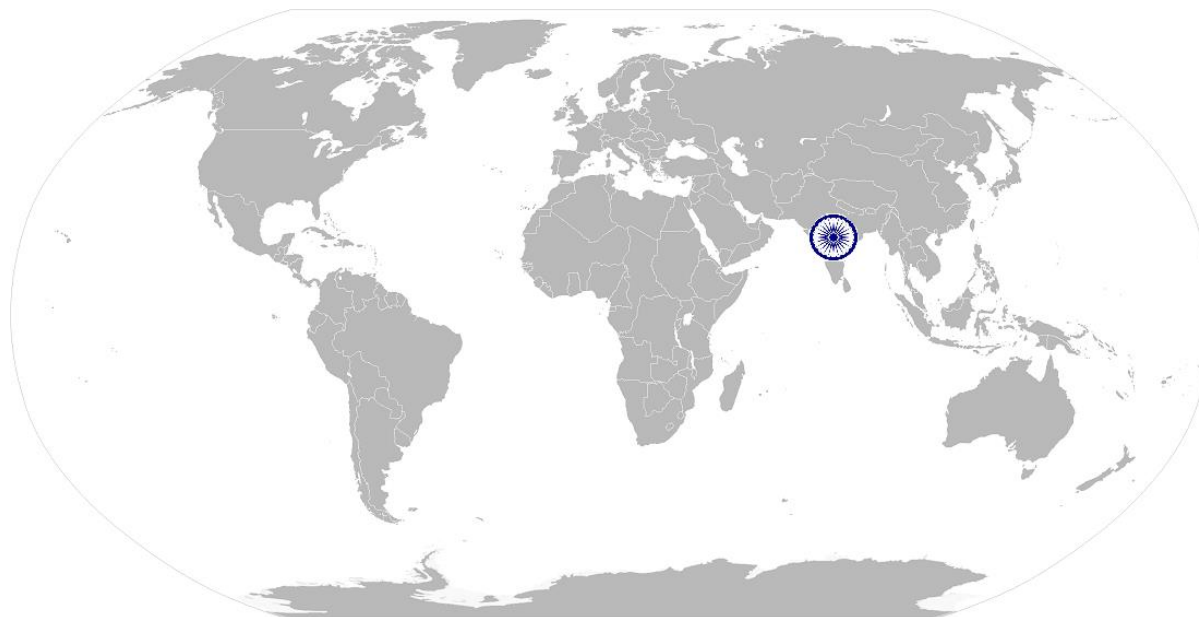


PCS/N9904

Maintain IPR of organisation and customer

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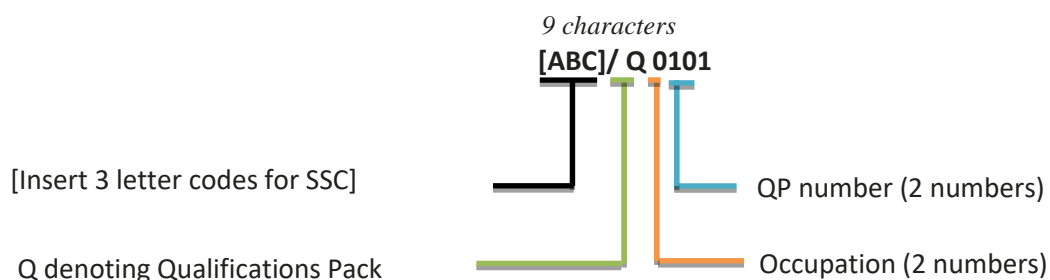
NOS Code	PCS/N9904		
Credits(NSQF)	TBD	Version number	1.0
Industry	Paints and Coatings	Drafted on	07/03/16
Industry Sub-sector	Manufacturing and Application	Last reviewed on	31/03/16
Occupation	Production – Liquid Paint	Next review date	31/03/18



Annexure

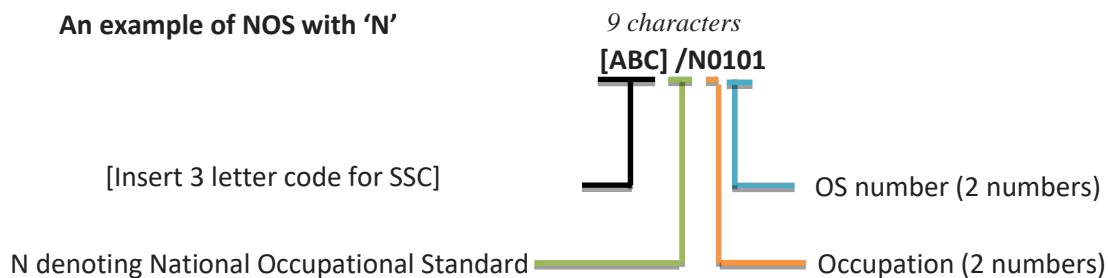
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



[Back to top...](#)

The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Manufacturing	01 - 49
Application	50 - 59
Unused	60 - 97
Generic occupation	98 - 99

Sequence	Description	Example
Three letters	Industry name	PCS
Slash	/	/
Next letter	Whether QP or NOS	Q / N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

ASSESSMENT CRITERIA

Job Role : Liquid Paint Processing Operator

Qualification Pack : PCS/Q0510

Sector Skill Council : Paints and Coatings

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 60% 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.

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
PCS/N0502 Charge the materials into the dispersion machine	PC1. understand the right raw materials to be used	50	2.5	1	1.5
	PC2. obtain the formulations prepared for the particular batch		2.5	1	1.5
	PC3. understand the job sheet for target and requirement		3	1	2
	PC4. pump the solvents and resins from internal storage vessels		3	1	2
	PC5. ensure to receive the right raw materials such as powder, additives, etc.		3	1	2
	PC6. mix water and additives in case of water base paint manufacture		3	1	2
	PC7. mix the powder, pigments, resin, solvent and additives in case of solvent base paint manufacture based on the formulations		3	1	2
	PC8. ensure to add the correct materials		3	1	2
	PC9. ensure the right amount and proportion of materials are mixed		3	1	2
	PC10. ensure the mixing happens for the appropriate time frame		3	1	2
	PC11. add water and the additives into the disperser		3	1	2
	PC12. load powder to water and additives in case of water base paint manufacture		3	1	2
	PC13. add the premixed raw materials to the disperser in case of solvent base paint manufacture		3	1	2
	PC14. ensure not to dump the materials		3	1	2



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	PC15. add zirconium beads to the sand mill to obtain light color		3	1	2
	PC16. add steel balls to ball mill to obtain dark colors		3	1	2
	PC17. check the loaded materials before grinding		3	1	2
	POINTS		50	17	33
	TOTAL POINTS		50		

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
PCS/N0503 Grind/ disperse the materials in the dispersion unit	PC1. adjust the speed in the machine as per the disperser type used and the amount of mixture	50	2.5	1	1.5
	PC2. set the grind time at the disperser based on the requirement and quantity of mixture to be fed		2.5	1	1.5
	PC3. turn on the machine for grinding to begin		2.5	1	1.5
	PC4. operate the machine on confirming the safety features to function the machine are in place		2.5	1	1.5
	PC5. use the specified machine for grinding such as sand mill, bead mill, ball mill, high speed dispersion machine, twin-shaft dispersion machine, etc.		2.5	1	1.5
	PC6. process the materials in high speed disperser subjecting to high speed agitation or on other machines based on requirement and specified formulations		2.5	1	1.5
	PC7. use special additives where necessary, to enhance dispersion stability		2.5	1	1.5
	PC8. operate the machine for the required amount of time for grinding		2.5	1	1.5
	PC9. ensure to be aware of the potential dangers involved with the disperser		3	1	2
	PC10. ensure to blend the pigment into solvents		3	1	2
	PC11. ensure its reached the desired grinding level		3	1	2
	PC12. ensure general maintenance and upkeep of the dispersion machine		3	1	2
	PC13. ensure no shut down of machines due to improper maintenance		3	1	2
	PC14. perform regular cleaning process as prescribed by manufacturer		3	1	2



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	PC15. ensure the manufactured paint provides a high viscosity and high solids mixture		3	1	2
	PC16. ensure to meet 100%, the established colour standards and quality		3	1	2
	PC17. ensure compliance to meet specified laboratory procedures for quality check		3	1	2
	PC18. ensure to complete the grinding in target time		3	1	2
	POINTS		50	18	32
	TOTAL POINTS		50		

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
PCS/N0504 Mix the paint raw materials	PC1. receive work instruction and formulation details from the supervisor	50	2.5	1	1.5
	PC2. understand the job sheet for the requirement and target for batch completion		2.5	1	1.5
	PC3. confirm the inline quality check result from QC after dispersion process		2.5	1	1.5
	PC4. transfer the paint to mixer after dispersion or monitor its transfer to dispersion in an automated plant		2.5	1	1.5
	PC5. measure the amount of paint in the mixer		3	1	2
	PC6. mix with recommended amount of binder or thinner to derive the desired paint type, e.g., solvent base or water based		3	1	2
	PC7. send sample for inline quality clearance		3	1	2
	PC8. after QC clearance, add emulsion, additives, binder, thinner, etc., to the paint as per the recommended formulation		3	1	2
	PC9. maintain schedule of recommended time, weight, frequency of addition		3	1	2
	PC10. filter and remove the sand particles as recommended		3	1	2
	PC11. send for quality check, especially, viscosity of the paint after thinning		2.5	1	1.5
	PC12. ensure the consistent batch quality of paint		2.5	1	1.5
	PC13. read the safety manuals as prescribed by the company		2.5	1	1.5
	PC14. ensure to wear appropriate protective gears such as gloves and masks while using the materials for thinning		3	1	2



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	PC15. ensure to comply to the safety procedures of the company		3	1	2
	PC16. ensure to achieve the specified consistency per batch		2.5	1	1.5
	PC17. ensure the viscosity, colour, and chemical properties of the paint are as per requirement		3	1	2
	PC18. achieve the targets specified as per job sheet requirement		3	1	2
	POINTS		50	18	32
	TOTAL POINTS		50		

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
PCS/N9901 Coordinate with colleagues and/or customers	PC1. receive job order and instructions from reporting superior	50	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
	PC4. escalate unresolved problems or complaints to the relevant senior		2.0	0.5	1.5
	PC5. communicate maintenance and repair schedule proactively to the superior		2.0	0.5	1.5
	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
	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 behaviors 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



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	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
	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		1.0	0.0	1.0



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	their understanding to what was discussed				
	PC37. explain the terms and conditions clearly		2.0	0.5	1.5
	POINTS		50	10	40
	TOTAL POINTS			50	

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
PCS/N9902 Maintain standards of product/ service quality	PC1. keep in mind the profiles of expected customers	50	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
	PC5. keep tab on frequent discussions with regular customers on general likes and dislikes in the market, latest trends, customer expectations, etc.		2.0	0.5	1.5
	PC6. receive updates on regular feedbacks from the clients on current service, complaints, and improvements to be made, etc.		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
	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		2.0	0.5	1.5

Qualifications Pack For Liquid Paint Processing Operator

	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	senior, especially, the negative feedback				
	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 (350)	Out of	Theory	Skills Practical
PCS/N9903 Maintain O&HS standards and follow environmental norms	PC1. assess the various health, safety and environmental hazards in the work areas	50	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
	PC4. suggest measures to prevent such accidents from taking place		1.5	0.4	1.1
	PC5. take preventive measures to avoid risk of burns and other injury due to contact with hot surfaces, gas, fire, hot fluids/ liquids, etc.		1.5	0.4	1.1
	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
	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		1.5	0.4	1.1



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	signs displayed				
	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
	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



	Performance Criteria	Total Marks (350)	Out of	Theory	Skills Practical
	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 (350)	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	50	7.0	0.0	7.0
	PC2. be aware of any of company's product or design patents		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
	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	350			