









# Construction Painter & Decorator

QP Code: CON/Q0503

Version: 4.0

NSQF Level: 3.5

Construction Skill Development Council of India || CPB 103 & 104 (1st Floor), Block 4B, DLF Corporate
Park, Phase III, MG Road
Gurgaon-122002 || email:standards@csdcindia.org









# **Contents**

LON/Q0503: Construction Painter & Decorator	3
Brief Job Description	3
Applicable National Occupational Standards (NOS)	3
Compulsory NOS	3
Qualification Pack (QP) Parameters	3
CON/N0515: Interact and engage with customers for paint application service	5
CON/N0505: Apply OBD, acrylic and emulsion paints on masonry surfaces	11
CON/N0506: Apply paint on metallic/ structural steel fabricated assemblies	16
CON/N0507: Apply, paint, varnish and polish on wooden surfaces	21
CON/N0510: Carry out repair of various painting faults	29
CON/N0516: Carry out industrial liquid painting	33
CON/N0517: Carry out texture coating, waterproofing and wallpaper application	39
DGT/VSQ/N0101: Employability Skills (30 Hours)	46
Assessment Guidelines and Weightage	51
Assessment Guidelines	51
Assessment Weightage	
Acronyms	
Glossary	55









### CON/Q0503: Construction Painter & Decorator

#### **Brief Job Description**

A Construction Painter & Decorator is responsible for applying paint on masonry, metallic and wooden surfaces to produce decorative finishes. The individual prepares the surfaces for painting, prepares the paint mix and applies paint on different surfaces. The person also identifies and corrects faults in surfaces.

#### **Personal Attributes**

The individual should be physically fit to work for long durations. The person should have attention to detail, problem-solving, decision-making skills. The individual should have appropriate verbal and written communication skills.

#### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. CON/N0515: Interact and engage with customers for paint application service
- 2. CON/N0505: Apply OBD, acrylic and emulsion paints on masonry surfaces
- 3. CON/N0506: Apply paint on metallic/ structural steel fabricated assemblies
- 4. CON/N0507: Apply, paint, varnish and polish on wooden surfaces
- 5. CON/N0510: Carry out repair of various painting faults
- 6. CON/N0516: Carry out industrial liquid painting
- 7. CON/N0517: Carry out texture coating, waterproofing and wallpaper application
- 8. CON/N8001: Work effectively in a team to deliver desired results at the workplace
- 9. CON/N8002: Plan and organize work to meet expected outcomes
- 10. CON/N9001: Work according to personal health, safety and environment protocols at construction site
- 11. DGT/VSQ/N0101: Employability Skills (30 Hours)

#### **Qualification Pack (QP) Parameters**









Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
Country	India
NSQF Level	3.5
Credits	14
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7132.0100
Minimum Educational Qualification & Experience	11th grade pass OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass and pursuing continuous schooling OR 8th grade pass with 3 Years of experience in the relevant field OR Previous relevant Qualification of NSQF Level (2.5) with 3 Years of experience in the relevant field OR Previous relevant Qualification of NSQF Level (3) with 1.5 Years of experience in the relevant field)
Minimum Level of Education for Training in School	8th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	31/08/2026
NSQC Approval Date	31/08/2023
Version	4.0
Reference code on NQR	QG-3.5-CO-00799-2023-V2-CSDCI
NQR Version	1









# CON/N0515: Interact and engage with customers for paint application service

#### **Description**

This OS unit is about interacting and engaging with the customer to understand the customer preferences and expectations for the paint application service.

#### Scope

The scope covers the following:

- Engage with the customer
- Estimate the resource requirement

#### **Elements and Performance Criteria**

#### Engage with the customer

To be competent, the user/individual on the job must be able to:

- **PC1.** communicate politely and clearly with customers using verbal and non-verbal communication
- PC2. identify customer's painting service requirements and preferences for colour, texture/ design
- **PC3.** address the customer's gueries and provide accurate information
- **PC4.** show colour combinations, finish and texture/ design to the customer, using shade cards, texture/ design booklets
- **PC5.** obtain and review customer feedback for continuous improvement

#### Estimate the resource requirement

To be competent, the user/individual on the job must be able to:

- **PC6.** assess the type and condition of the substrate to be painted
- **PC7.** select the most appropriate tools, equipment and method to measure the painting area, e.g. a scale or a tape for linear measurements
- **PC8.** measure the painting area and calculate the quantity of material required
- **PC9.** identify the tools and equipment required, including PPE, for the job
- **PC10.** estimate the workforce, time required and the total cost of completing the painting job
- **PC11.** identify and suggest appropriate painting solutions to the customer according to their budget
- **PC12.** discuss the completion date and payment schedule with the customer and document the same
- **PC13.** prepare the final invoice and submit it to the customer for payment, after the completion of painting work

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:









- **KU1.** various products for different surfaces, weather conditions, durability and cost
- **KU2.** different finishes, texture designs and tools, manual and machine painting
- **KU3.** different painting techniques, such as brushing, rolling, or spraying, as well as knowledge of various types of paint (e.g., latex, oil-based) and their properties
- **KU4.** the colour theory and the principles of design, such as colour harmony, contrast, and balance
- **KU5.** the procedure of colour selection, coordinating colour schemes, and achieving the desired aesthetic effect
- **KU6.** proper surface preparation techniques, including how to clean, sand, patch, and prime different types of surfaces, such as drywall, wood, or metal, before applying paint
- **KU7.** how to assess the condition of the surfaces and recommend necessary repairs or preparations to customers
- **KU8.** different paint brands, finishes (e.g., matte, satin, gloss), and speciality coatings (e.g., stainblocking, moisture-resistant) to guide customers in selecting the appropriate products
- **KU9.** the durability, coverage, and performance characteristics of different paints
- **KU10.** the applicable safety precautions, environmental regulations and any potential hazards or precautions during the painting process
- **KU11.** the handling and disposal of paint products
- **KU12.** how to assess the project requirements, calculate material quantities, and provide accurate cost estimates to customers
- **KU13.** the procedure of planning and managing painting projects, including determining project timelines, coordinating resources, and ensuring customer satisfaction
- **KU14.** the importance of good communication skills to engage with customers and address their concerns
- **KU15.** the importance of explaining painting processes, timelines, and potential challenges to customers
- **KU16.** how to address common surface preparation problems and colour discrepancies
- **KU17.** the benefits of staying updated with the latest trends, techniques, and innovations in the painting industry, e.g. new paint products, application methods, sustainable practices, and energy-efficient options
- **KU18.** the importance of adhering to ethical business practices, including transparency, honesty, and reliability

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority









- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Engage with the customer	10	20	-	4
<b>PC1.</b> communicate politely and clearly with customers using verbal and non-verbal communication	-	-	-	-
<b>PC2.</b> identify customer's painting service requirements and preferences for colour, texture/ design	-	-	-	-
<b>PC3.</b> address the customer's queries and provide accurate information	-	-	-	-
<b>PC4.</b> show colour combinations, finish and texture/ design to the customer, using shade cards, texture/ design booklets	-	-	-	-
<b>PC5.</b> obtain and review customer feedback for continuous improvement	-	-	-	-
Estimate the resource requirement	20	40	-	6
<b>PC6.</b> assess the type and condition of the substrate to be painted	-	-	-	-
<b>PC7.</b> select the most appropriate tools, equipment and method to measure the painting area, e.g. a scale or a tape for linear measurements	-	-	-	-
<b>PC8.</b> measure the painting area and calculate the quantity of material required	-	-	-	-
<b>PC9.</b> identify the tools and equipment required, including PPE, for the job	-	-	-	-
<b>PC10.</b> estimate the workforce, time required and the total cost of completing the painting job	-	-	-	-
<b>PC11.</b> identify and suggest appropriate painting solutions to the customer according to their budget	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> discuss the completion date and payment schedule with the customer and document the same	-	-	-	-
<b>PC13.</b> prepare the final invoice and submit it to the customer for payment, after the completion of painting work	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0515
NOS Name	Interact and engage with customers for paint application service
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	2
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









# CON/N0505: Apply OBD, acrylic and emulsion paints on masonry surfaces

#### **Description**

This unit is about applying Oil Bound Distemper (OBD), acrylic and emulsion paints on different finished masonry surfaces.

#### Scope

The scope covers the following:

- Prepare the base surfaces
- Prepare the paint mix
- Apply the paint

#### **Elements and Performance Criteria**

#### Prepare the base surfaces

To be competent, the user/individual on the job must be able to:

- **PC1.** check the physical condition of the surface to determine its suitability for painting
- **PC2.** measure the surface to be painted and calculate the appropriate quantity of required materials
- **PC3.** ensure the surface is free from dust, dirt and grease and is prepared appropriately before the application of paint
- **PC4.** apply putty to fill gaps and depressions on the surface, as required, to achieve a level surface
- **PC5.** ensure the adjacent surfaces are covered with drop cloths/ masking tape/paper and all removable items/fixtures are removed before painting
- **PC6.** perform cleaning and maintenance of painting tools and equipment before and after use *Prepare the paint mix*

To be competent, the user/individual on the job must be able to:

- **PC7.** select the appropriate painting material and mixing ingredients according to the desired finish
- **PC8.** determine the base color of paint and select appropriate colorants, suitable for color match, to meet the aesthetic requirements
- **PC9.** prepare the mix of paint material and additives using them in the recommended ratio, following the standard procedure for effective mixing and dilution of paints
- **PC10.** use reducer/thinner/ water to adjust the viscosity of paint mix, as appropriate

#### Apply the paint

To be competent, the user/individual on the job must be able to:

- **PC11.** apply primer coat of paint to the leveled surfaces as per specifications
- **PC12.** apply the main coat of paint over primer coat within the recommended time limit, followed by the final coat as per the required tint
- **PC13.** apply an appropriate tackifier solvent or brush blast to roughen the surface in case recoat time of paint exceeds the specified time









**PC14.** ensure the cleaning of the surface of each dry coat appropriately before the application of next coat

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** standard procedure for construction painting works
- KU2. safety regulations for handling and storing required painting tools, equipment and materials
- **KU3.** the importance of personal protection and the use of related safety gear and equipment
- **KU4.** basic schematics relevant to painting
- **KU5.** the principles of measurement, geometry and arithmetic calculation
- **KU6.** the linear conversion of units and units of measurements
- **KU7.** the selection and use of different painting tools, such as brushes, rollers, stirrers, scrapers, sandpapers, putty blades, etc.
- **KU8.** the appropriate painting materials and mixing ingredients, such as scrape, primer, base colour, tint base, colourants, varnishes, enamel, etc.
- **KU9.** the standard size of painting tools, materials and components
- **KU10.** the methods of protecting adjacent surfaces before painting
- **KU11.** how to mix the correct amount of paint material as per the specified ratio
- **KU12.** how to adjust the viscosity of paint mix and different reducers/thinners used for adjusting the viscosity
- **KU13.** the application of primer
- **KU14.** the adhesives used for binding coats of paint, such as oil, and turpentine
- **KU15.** various methods for surface preparation before painting
- **KU16.** the properties of putty and its use in surface preparation

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare the base surfaces	11	15	-	3
<b>PC1.</b> check the physical condition of the surface to determine its suitability for painting	-	-	-	-
<b>PC2.</b> measure the surface to be painted and calculate the appropriate quantity of required materials	-	-	-	-
<b>PC3.</b> ensure the surface is free from dust, dirt and grease and is prepared appropriately before the application of paint	-	-	-	-
<b>PC4.</b> apply putty to fill gaps and depressions on the surface, as required, to achieve a level surface	-	-	-	-
<b>PC5.</b> ensure the adjacent surfaces are covered with drop cloths/ masking tape/paper and all removable items/fixtures are removed before painting	-	-	-	-
<b>PC6.</b> perform cleaning and maintenance of painting tools and equipment before and after use	-	-	-	-
Prepare the paint mix	10	20	-	3
<b>PC7.</b> select the appropriate painting material and mixing ingredients according to the desired finish	-	-	-	-
<b>PC8.</b> determine the base color of paint and select appropriate colorants, suitable for color match, to meet the aesthetic requirements	-	-	-	-
<b>PC9.</b> prepare the mix of paint material and additives using them in the recommended ratio, following the standard procedure for effective mixing and dilution of paints	-	-	-	-
<b>PC10.</b> use reducer/thinner/ water to adjust the viscosity of paint mix, as appropriate	-	-	-	-
Apply the paint	9	25	-	4









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> apply primer coat of paint to the leveled surfaces as per specifications	-	-	-	-
<b>PC12.</b> apply the main coat of paint over primer coat within the recommended time limit, followed by the final coat as per the required tint	-	-	-	-
<b>PC13.</b> apply an appropriate tackifier solvent or brush blast to roughen the surface in case recoat time of paint exceeds the specified time	-	-	-	-
<b>PC14.</b> ensure the cleaning of the surface of each dry coat appropriately before the application of next coat	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0505
NOS Name	Apply OBD, acrylic and emulsion paints on masonry surfaces
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	2
Version	4.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









# CON/N0506: Apply paint on metallic/ structural steel fabricated assemblies

#### **Description**

This unit is about the application of paint on metallic/ structural steel fabricated assemblies.

#### Scope

The scope covers the following:

- Prepare the base surfaces
- Prepare the paint mix
- Apply paint coatings

#### **Elements and Performance Criteria**

#### Prepare the base surfaces

To be competent, the user/individual on the job must be able to:

- **PC1.** check the physical condition of the surface to determine its suitability for painting
- **PC2.** identify and remove loose mill scale, rust, paint and other loose detrimental foreign matter before the application of paint
- **PC3.** ensure fabricated steel/ metallic items are cleaned, washed, stripped of previous paints and corrosion and surface is leveled by filling depressions
- **PC4.** clean the bolts, nuts, welds, field rivet heads, machines, equipment, and work areas appropriately using water, solvents and other cleaning aids
- **PC5.** use appropriate tools such as rotary or impact power tools to remove rust (rust scale), weld slag, flux and weld spatter

#### Prepare the paint mix

To be competent, the user/individual on the job must be able to:

- **PC6.** select the appropriate base color and colorants suitable for color match to meet the aesthetic requirements
- **PC7.** prepare the mix of paint material and additives, using them in the recommended ratio
- **PC8.** follow the standard procedure for effective mixing and dilution of paints, and use reducer/thinner/ water to adjust the viscosity of paint mix, as per requirement

#### Apply paint coatings

To be competent, the user/individual on the job must be able to:

- **PC9.** apply the specified number of primer coats on metal surfaces to prevent any oxidization
- **PC10.** use an appropriate primer on rusted metal surfaces
- **PC11.** ensure that primer coat is allowed to dry for specified time prior to the application of any subsequent coat
- **PC12.** apply appropriate coats of paint as per the requirements and allow the recommended drying time between consecutive coats









#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** how to set up and operate rotary or impact power tools for painting on the metallic surface
- **KU2.** the importance of preventing the formation of burrs, sharp ridges and sharp cuts on painted surfaces
- **KU3.** how to identify welding defects such as flux, weld spatter and surface defects and the appropriate measures to hide them while painting
- **KU4.** how to carry out proper cleaning of bolts, nuts, welds, and field rivet heads
- **KU5.** the process of applying different types of primers, such as zinc chromate primer, farrow and ball metal primer, etc.
- **KU6.** the recommended time gap between the application of two coats of primer/paints

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare the base surfaces	10	20	-	3
<b>PC1.</b> check the physical condition of the surface to determine its suitability for painting	-	-	-	-
<b>PC2.</b> identify and remove loose mill scale, rust, paint and other loose detrimental foreign matter before the application of paint	-	-	-	-
<b>PC3.</b> ensure fabricated steel/ metallic items are cleaned, washed, stripped of previous paints and corrosion and surface is leveled by filling depressions	-	-	-	-
<b>PC4.</b> clean the bolts, nuts, welds, field rivet heads, machines, equipment, and work areas appropriately using water, solvents and other cleaning aids	-	-	-	-
<b>PC5.</b> use appropriate tools such as rotary or impact power tools to remove rust (rust scale), weld slag, flux and weld spatter	-	-	-	-
Prepare the paint mix	11	15	-	3
<b>PC6.</b> select the appropriate base color and colorants suitable for color match to meet the aesthetic requirements	-	-	-	-
<b>PC7.</b> prepare the mix of paint material and additives, using them in the recommended ratio	-	-	-	-
<b>PC8.</b> follow the standard procedure for effective mixing and dilution of paints, and use reducer/thinner/ water to adjust the viscosity of paint mix, as per requirement	-	-	-	-
Apply paint coatings	9	25	-	4
<b>PC9.</b> apply the specified number of primer coats on metal surfaces to prevent any oxidization	-	-	-	-
<b>PC10.</b> use an appropriate primer on rusted metal surfaces	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> ensure that primer coat is allowed to dry for specified time prior to the application of any subsequent coat	-	-	-	-
<b>PC12.</b> apply appropriate coats of paint as per the requirements and allow the recommended drying time between consecutive coats	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0506
NOS Name	Apply paint on metallic/ structural steel fabricated assemblies
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	1
Version	4.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









### CON/N0507: Apply, paint, varnish and polish on wooden surfaces

#### **Description**

This unit is about the application of paint, varnish and polish on wooden surfaces.

#### Scope

The scope covers the following:

- Prepare the base surfaces
- Prepare paint and varnish for application
- Apply paint and varnish
- Carry out wood polishing

#### **Elements and Performance Criteria**

#### Prepare the base surfaces

To be competent, the user/individual on the job must be able to:

- **PC1.** check the physical condition of the surface to determine its suitability for painting, varnishing and polishing
- **PC2.** identify and remove loose and loose detrimental foreign matter using the appropriate tools
- PC3. apply bleaching agents on wooden surface using a brush to restore natural color of wood
- **PC4.** treat warped or stained surfaces to restore the original contours and colors
- PC5. fill gaps/depressions with appropriate wood filler, as required
- **PC6.** smooth, shape, and touch-up surface using sandpaper, pumice stones, steel wool, chisels, sanders, or grinders
- **PC7.** ensure that adjacent surfaces are covered with drop cloths/ masking tape/paper and all removable items/accessories /fixtures are removed before painting

#### Prepare paint and varnish for application

To be competent, the user/individual on the job must be able to:

- **PC8.** select appropriate finishing ingredients such as paint, lacquer, shellac, or varnish as per specification / instructions and appropriate colorants suitable for color match
- **PC9.** prepare the mix of paint material and additives using them in the recommended ratio
- **PC10.** follow the standard procedure for effective mixing and dilution of paint and varnish, adding reducer/thinner/ water to adjust the viscosity of paint mix as per requirement

#### Apply paint, varnish and polish

To be competent, the user/individual on the job must be able to:

- **PC11.** apply a primer coat of paint/varnish to the wooden surface.as per the specification, and further coat of specified thickness after the primer dries
- PC12. carry out sanding of the surface using appropriate tools
- **PC13.** apply coat of putty/wood filler wood and sand the applied coat to produce smooth surfaces of uniform thickness









**PC14.** apply toners, highlights, glazes or shades to obtain the desired finish, and lacquer or other sealers as per the specification

#### Carry out wood polishing

To be competent, the user/individual on the job must be able to:

- **PC15.** select the appropriate polishing products and methods according to the type of wood surface
- **PC16.** sand the wood to remove imperfections, and old finishes, and achieve a smooth and even surface
- **PC17.** identify and fill cracks or gaps in the wood surface, as required
- **PC18.** use the appropriate polishing products such as varnishes, lacquers, shellacs, waxes, etc., based on their characteristics, application methods, and drying times
- **PC19.** select the appropriate polishing technique such as rubbing, brushing, or spraying, based on different wood surfaces and finish requirements
- **PC20.** apply the appropriate amount of pressure to achieve consistent strokes to obtain a smooth and uniform polish
- **PC21.** perform stain application and colour matching to match the colour of the wood being polished to other wood surfaces or existing finishes
- **PC22.** apply protective finishes after polishing, such as sealers or topcoats, to enhance the durability of wood and provide resistance to moisture, heat, and wear
- **PC23.** follow the appropriate application method and the drying times for the selected finish
- **PC24.** check for any imperfections, drips, or streaks during the polishing process and make necessary adjustments
- **PC25.** follow the recommended wood surface maintenance techniques, e.g. cleaning and touch-up techniques
- **PC26.** use the recommended cleaning products which are safe for use on finished wood surfaces

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** how to remove accessories before finishing, and mask the areas that should not be exposed to finishing processes or substances
- **KU2.** the importance of applying bleaching agents on wood surface
- **KU3.** how to apply finishes, varnishes, putty, primer, sealants, toners, etc.
- **KU4.** different wood types, their properties, and how they react to various polishing techniques
- **KU5.** the criteria for selecting appropriate polishing methods, products, and finishes for different wood surfaces
- **KU6.** different polishing techniques, such as hand rubbing, buffing, or use of polishing machines, including the requirement of specific motions, pressures, and tools
- **KU7.** when and how to apply appropriate motions and pressures to achieve the desired polish
- **KU8.** the sanding of wood surfaces for achieving a smooth and even finish
- **KU9.** the grits of sandpaper, and sanding motions
- **KU10.** the importance of removing imperfections, old finishes, or blemishes before wood polishing
- **KU11.** different polishing products and finishes, such as varnishes, lacguers, oils, waxes, or shellacs









- **KU12.** the characteristics, application methods, and drying times of different wood polishing products
- **KU13.** how different wood polishing products interact with different wood types
- **KU14.** the selection of the appropriate product for the desired finish
- **KU15.** the procedure of applying wood stains or colouring agents to achieve the desired tones or shades
- **KU16.** the absorption properties of different woods
- **KU17.** the effects of stains or dyes on wood grain
- KU18. the blending and colour layering techniques to create customized finishes
- **KU19.** the wood repair techniques, such as filling cracks, gouges, or holes, to restore damaged or worn wood surfaces before polishing
- **KU20.** the use of wood fillers, epoxy resins, and other repair materials, and their compatibility with polishing products
- **KU21.** the procedure of applying protective finishes after polishing wood to enhance durability and provide resistance to moisture, heat, and wear
- **KU22.** the use of sealers, topcoats, and other protective layers, and the appropriate application methods, drying times, and maintenance requirements
- **KU23.** the appropriate safety measures to be taken while working with polishing products, such as proper ventilation, and the use of Personal Protective Equipment (PPE) like gloves and goggles
- **KU24.** the safe handling, storage, and disposal of wood polishing products
- **KU25.** the wood maintenance practices, including cleaning, polishing, and touch-up techniques, to preserve the beauty and longevity of polished wood surfaces
- **KU26.** the use of suitable cleaning products, and the importance of avoiding the use of abrasive materials
- **KU27.** the appropriate maintenance schedules for different wood surfaces
- **KU28.** the common application defects and appropriate remedies in wood polishing
- **KU29.** the importance of staying updated with new techniques, products, and trends in wood polishing

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents









- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare the base surfaces	8	15	-	3
<b>PC1.</b> check the physical condition of the surface to determine its suitability for painting, varnishing and polishing	-	-	-	-
<b>PC2.</b> identify and remove loose and loose detrimental foreign matter using the appropriate tools	-	-	-	-
<b>PC3.</b> apply bleaching agents on wooden surface using a brush to restore natural color of wood	-	-	-	-
<b>PC4.</b> treat warped or stained surfaces to restore the original contours and colors	-	-	-	-
<b>PC5.</b> fill gaps/depressions with appropriate wood filler, as required	-	-	-	-
<b>PC6.</b> smooth, shape, and touch-up surface using sandpaper, pumice stones, steel wool, chisels, sanders, or grinders	-	-	-	-
<b>PC7.</b> ensure that adjacent surfaces are covered with drop cloths/ masking tape/paper and all removable items/accessories /fixtures are removed before painting	-	-	-	-
Prepare paint and varnish for application	4	15	-	2
<b>PC8.</b> select appropriate finishing ingredients such as paint, lacquer, shellac, or varnish as per specification / instructions and appropriate colorants suitable for color match	-	-	-	-
<b>PC9.</b> prepare the mix of paint material and additives using them in the recommended ratio	-	-	-	-
<b>PC10.</b> follow the standard procedure for effective mixing and dilution of paint and varnish, adding reducer/thinner/ water to adjust the viscosity of paint mix as per requirement	-	-	-	-
Apply paint, varnish and polish	4	15	-	2









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> apply a primer coat of paint/varnish to the wooden surface.as per the specification, and further coat of specified thickness after the primer dries	-	-	-	-
<b>PC12.</b> carry out sanding of the surface using appropriate tools	-	-	-	-
<b>PC13.</b> apply coat of putty/wood filler wood and sand the applied coat to produce smooth surfaces of uniform thickness	-	-	-	-
<b>PC14.</b> apply toners, highlights, glazes or shades to obtain the desired finish, and lacquer or other sealers as per the specification	-	-	-	-
Carry out wood polishing	14	15	-	3
<b>PC15.</b> select the appropriate polishing products and methods according to the type of wood surface	-	-	-	-
<b>PC16.</b> sand the wood to remove imperfections, and old finishes, and achieve a smooth and even surface	-	-	-	-
<b>PC17.</b> identify and fill cracks or gaps in the wood surface, as required	-	-	-	-
<b>PC18.</b> use the appropriate polishing products such as varnishes, lacquers, shellacs, waxes, etc., based on their characteristics, application methods, and drying times	-	-	-	-
<b>PC19.</b> select the appropriate polishing technique such as rubbing, brushing, or spraying, based on different wood surfaces and finish requirements	-	-	-	-
<b>PC20.</b> apply the appropriate amount of pressure to achieve consistent strokes to obtain a smooth and uniform polish	-	-	-	-
<b>PC21.</b> perform stain application and colour matching to match the colour of the wood being polished to other wood surfaces or existing finishes	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> apply protective finishes after polishing, such as sealers or topcoats, to enhance the durability of wood and provide resistance to moisture, heat, and wear	-	-	-	-
<b>PC23.</b> follow the appropriate application method and the drying times for the selected finish	-	-	-	-
<b>PC24.</b> check for any imperfections, drips, or streaks during the polishing process and make necessary adjustments	-	-	-	-
<b>PC25.</b> follow the recommended wood surface maintenance techniques, e.g. cleaning and touch-up techniques	-	-	-	-
<b>PC26.</b> use the recommended cleaning products which are safe for use on finished wood surfaces	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0507
NOS Name	Apply, paint, varnish and polish on wooden surfaces
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	2
Version	4.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









### CON/N0510: Carry out repair of various painting faults

#### **Description**

This unit is about identifying and repairing various painting faults.

#### Scope

The scope covers the following:

- Identify defects in painted surfaces
- Undertake the remedial measures

#### **Elements and Performance Criteria**

#### Identify defects in painted surfaces

To be competent, the user/individual on the job must be able to:

- **PC1.** check the painted surface for defects and identify the painting problem and point out defects, such as orange peel, blushing, fade, spotting, water marks, blemished metallic finish, discolouration, chalking, cracks, etc.
- PC2. determine the nature of defect and carry out remedial action as per applicability

#### Undertake the remedial measures

To be competent, the user/individual on the job must be able to:

- **PC3.** polish the defects with appropriate compound for defects, such as orange peel, blushing, fade, spotting, etc.
- **PC4.** flatten the defect using whetstone followed by the application of top coat of paint for defects, such as fish eyes (beads), blemished metallic finish, abrasive marks, etc.
- **PC5.** flatten the defect using whetstone followed by the application of appropriate primer and a top coat of paint, for defects, such as putty marks and shrinkage
- **PC6.** strip the paint followed by the application of putty and paint subsequently, for defects such as blisters and cracks

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** how to adjust the viscosity of the paint mix and the use of different reducers/thinners for the purpose
- **KU2.** the process of applying primer
- **KU3.** the properties and use of adhesives for binding coats of paint such as oil, turpentine, and other preparations
- **KU4.** how to sand rough spots
- **KU5.** the common painting defects
- **KU6.** different remedial actions to be taken for resolving different painting defects









#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Identify defects in painted surfaces	15	30	-	5
<b>PC1.</b> check the painted surface for defects and identify the painting problem and point out defects, such as orange peel, blushing, fade, spotting, water marks, blemished metallic finish, discolouration, chalking, cracks, etc.	-	-	-	-
<b>PC2.</b> determine the nature of defect and carry out remedial action as per applicability	-	-	-	-
Undertake the remedial measures	15	30	-	5
<b>PC3.</b> polish the defects with appropriate compound for defects, such as orange peel, blushing, fade, spotting, etc.	-	-	-	-
<b>PC4.</b> flatten the defect using whetstone followed by the application of top coat of paint for defects, such as fish eyes (beads), blemished metallic finish, abrasive marks, etc.	-	-	-	-
<b>PC5.</b> flatten the defect using whetstone followed by the application of appropriate primer and a top coat of paint, for defects, such as putty marks and shrinkage	-	-	-	-
<b>PC6.</b> strip the paint followed by the application of putty and paint subsequently, for defects such as blisters and cracks	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0510
NOS Name	Carry out repair of various painting faults
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	1
Version	4.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









# CON/N0516: Carry out industrial liquid painting

#### **Description**

This OS unit is about carrying out industrial liquid painting.

#### Scope

The scope covers the following:

- Plan the work
- Prepare the surface and materials
- Pretreat for coating
- Apply the paint, dry/ bake/ cure and finish the surface
- Maintain the tools and equipment

#### **Elements and Performance Criteria**

#### Plan the work

To be competent, the user/individual on the job must be able to:

- **PC1.** determine the work requirements by checking the work plan
- **PC2.** check the work site for relevant hazards and implement appropriate measures to minimize them
- **PC3.** check the tools, equipment and jigs/ hangers are suitable and ready for use

#### Prepare the surface and materials

To be competent, the user/individual on the job must be able to:

- **PC4.** check the condition of the substrate, assessing the nature and quantity of contaminants to be removed before painting
- **PC5.** select the appropriate method to clean the substrate, e.g. mechanical or chemical cleaning
- **PC6.** mask the areas not required to be coated using appropriate means, e.g. masking tape
- **PC7.** implement appropriate measures to maintain the painting area dust free
- **PC8.** mix the paint/ coating materials and diluents in the recommended ratio to achieve the desired quality
- **PC9.** stir the paint/ coating thoroughly and maintain it under constant stirring using suitable equipment

#### Pretreat for coating

To be competent, the user/individual on the job must be able to:

- **PC10.** set up the mechanical pretreatment tools and equipment as per the manufacturer's instructions
- **PC11.** set up the chemical pretreat process and parameters as per the supplier's recommendation
- **PC12.** prepare and pretreat the substrate as per the standard procedure, removing unwanted coating and loose films from the previously coated substrate
- **PC13.** check the quality of surface preparation as per the standard procedure

Apply the paint, dry/ bake/ cure and finish the surface









To be competent, the user/individual on the job must be able to:

- **PC14.** set up the paint application equipment for use, conducting pre-operational tests as per the manufacturer's instructions
- **PC15.** apply the paint/ coating, operating the paint application equipment appropriately to achieve the desired colour and opacity
- **PC16.** dry/ cure/ bake the applied coating following the standard procedure
- **PC17.** identify defects in the coating, and take appropriate corrective measures, e.g. rubbing/ polishing/ re-painting, to meet the applicable quality requirements

#### Maintain the tools and equipment

To be competent, the user/individual on the job must be able to:

- **PC18.** clean up the worksite after work and place the waste and discarded materials into appropriate waste bins
- **PC19.** perform basic repair and maintenance of the tools and equipment, e.g. cleaning and greasing, and store them safely
- **PC20.** clean the jigs/ hangers as per the standard procedure

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** the properties, durability, chemical resistance, UV resistance, and application methods for different types of coatings used in industrial liquid painting, such as epoxy, polyurethane, acrylic, or enamel
- **KU2.** the selection of appropriate coating for specific surfaces and environmental conditions
- **KU3.** the appropriate surface preparation techniques to achieve appropriate adhesion and a high-quality finish, e.g. cleaning, abrasive blasting (such as sandblasting), degreasing, surface profiling, and removal of rust, scale, or previous coatings
- **KU4.** the use of appropriate painting equipment in industrial liquid painting, such as spray guns, airless sprayers, electrostatic spray systems, or robotic painting systems
- **KU5.** the appropriate adjustments and maintenance of painting equipment for efficient and effective paint application
- **KU6.** the appropriate paint mixing ratios and thinning techniques
- **KU7.** the compatibility of different paints and thinners to achieve the desired viscosity and consistency for paint application
- **KU8.** different paint application techniques, including air spraying, airless spraying, electrostatic spraying, or manual brushing and rolling
- **KU9.** the appropriate technique for different surfaces, coatings, and desired finishes to achieve uniform coverage and proper film build
- **KU10.** the drying and curing process of different coatings, including ambient drying, forced drying, or heat curing
- **KU11.** the drying times, temperature requirements, and environmental conditions for proper film formation and curing
- **KU12.** the appropriate safety measures in industrial liquid painting, including optimal ventilation and use of relevant PPE









- KU13. the handling and storage of hazardous materials relevant to liquid painting
- **KU14.** the appropriate quality control processes in liquid painting, such as visual inspection, film thickness measurement, adhesion testing, and surface testing
- **KU15.** the applicable quality standards and specifications to ensure the finished coatings meet the required performance and appearance criteria
- **KU16.** the identification and troubleshooting of common painting issues, such as sagging, orange peel, fish eyes, or improper film build
- **KU17.** the local, regional, and national environmental regulations and guidelines related to industrial liquid painting, e.g. proper waste disposal, Volatile Organic Compounds (VOC) regulations, recycling options, and sustainability practices
- **KU18.** the importance of staying updated with new coating technologies, industry standards, and best practices in industrial liquid painting

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Plan the work	4	10	-	1
<b>PC1.</b> determine the work requirements by checking the work plan	-	-	-	-
<b>PC2.</b> check the work site for relevant hazards and implement appropriate measures to minimize them	-	-	-	-
<b>PC3.</b> check the tools, equipment and jigs/ hangers are suitable and ready for use	-	-	-	-
Prepare the surface and materials	12	20	-	3
<b>PC4.</b> check the condition of the substrate, assessing the nature and quantity of contaminants to be removed before painting	-	-	-	-
<b>PC5.</b> select the appropriate method to clean the substrate, e.g. mechanical or chemical cleaning	-	-	-	-
<b>PC6.</b> mask the areas not required to be coated using appropriate means, e.g. masking tape	-	-	-	-
<b>PC7.</b> implement appropriate measures to maintain the painting area dust free	-	-	-	-
PC8. mix the paint/ coating materials and diluents in the recommended ratio to achieve the desired quality	-	-	-	-
<b>PC9.</b> stir the paint/ coating thoroughly and maintain it under constant stirring using suitable equipment	-	-	-	-
Pretreat for coating	6	10	-	2
<b>PC10.</b> set up the mechanical pretreatment tools and equipment as per the manufacturer's instructions	-	-	-	-
<b>PC11.</b> set up the chemical pretreat process and parameters as per the supplier's recommendation	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> prepare and pretreat the substrate as per the standard procedure, removing unwanted coating and loose films from the previously coated substrate	-	-	-	-
<b>PC13.</b> check the quality of surface preparation as per the standard procedure	-	-	-	-
Apply the paint, dry/ bake/ cure and finish the surface	4	10	-	2
<b>PC14.</b> set up the paint application equipment for use, conducting pre-operational tests as per the manufacturer's instructions	-	-	-	-
<b>PC15.</b> apply the paint/ coating, operating the paint application equipment appropriately to achieve the desired colour and opacity	-	-	-	-
PC16. dry/ cure/ bake the applied coating following the standard procedure	-	-	-	-
<b>PC17.</b> identify defects in the coating, and take appropriate corrective measures, e.g. rubbing/polishing/ re-painting, to meet the applicable quality requirements	-	-	-	-
Maintain the tools and equipment	4	10	-	2
<b>PC18.</b> clean up the worksite after work and place the waste and discarded materials into appropriate waste bins	-	-	-	-
<b>PC19.</b> perform basic repair and maintenance of the tools and equipment, e.g. cleaning and greasing, and store them safely	-	-	-	-
<b>PC20.</b> clean the jigs/ hangers as per the standard procedure	-	-	-	-
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0516
NOS Name	Carry out industrial liquid painting
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	1
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









# CON/N0517: Carry out texture coating, waterproofing and wallpaper application

### **Description**

This OS unit is about carrying out texture coating, waterproofing and wallpaper application.

### Scope

The scope covers the following:

- Apply texture coat and decorative paint finishes
- Carry out waterproofing
- Carry out wallpaper application

### **Elements and Performance Criteria**

#### Apply texture coat and decorative paint finishes

To be competent, the user/individual on the job must be able to:

- **PC1.** determine the work requirements concerning the application of texture coat and other decorative paint finishes
- **PC2.** select the appropriate materials, tools and equipment for the selected texture coat/ decorative paint finishes
- **PC3.** mix and adjust the texture coat/decorative paint finish viscosity for application
- PC4. apply texture paint using spray equipment to achieve the specified finish
- **PC5.** use brushes and rollers following the recommended measures to achieve the required finish
- **PC6.** lay out the stencil design on the work area using tapes and apply paint to achieve the required design
- **PC7.** identify defects in the coating and take appropriate corrective measures to achieve the required finish

#### Carry out waterproofing

To be competent, the user/individual on the job must be able to:

- **PC8.** assess the area requiring waterproofing and plan accordingly
- **PC9.** select the best-suited materials for the assessed area
- **PC10.** mix the waterproofing materials in the recommended ratio to achieve the specified quality
- **PC11.** select the appropriate application method based on the area and type of surface and waterproofing material
- PC12. apply the waterproofing material appropriately following the selected application method
- **PC13.** identify issues with waterproofing and take appropriate corrective measures

#### Carry out wallpaper application

To be competent, the user/individual on the job must be able to:

- **PC14.** determine the wallpaper application requirements and plan accordingly
- **PC15.** arrange the appropriate types and quantity of wallpaper and glue for wallpaper application, ensuring adherence to the applicable criteria, e.g. design and pattern









- **PC16.** select the appropriate tools and equipment for wallpaper application and check their suitability for use
- **PC17.** select the appropriate surface preparation method according to the substrate, finish and environmental requirements
- **PC18.** prepare the surface for wallpaper application by removing the existing coating/ wallpaper, and loose debris, repairing, stopping and filling imperfections, and sanding
- **PC19.** seal the substrate surface using appropriate materials
- **PC20.** prepare the adhesive/ glue as per the manufacturer's instructions
- **PC21.** apply wallpaper to the prepared wall ensuring an even surface, plumb paper, and matching pattern
- PC22. trim the wallpaper appropriately around the fittings with minimal impact on the surroundings
- PC23. remove any residue for a clean finish

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** the properties, texture patterns, application methods, and specific uses of different types of texture coatings, such as acrylic, elastomeric, synthetic stucco, or texture paint
- **KU2.** the selection of appropriate coating for different surfaces and desired finishes
- **KU3.** the surface preparation techniques for texture coating application, e.g. cleaning, repairing cracks or imperfections, removing loose or damaged material, to achieve proper adhesion and a high-quality textured finish
- **KU4.** the operation, adjustments, and maintenance of the application equipment used in texture coatings, such as spray guns, texture sprayers, or trowels
- **KU5.** the appropriate techniques to achieve different texture patterns, such as splatter, knockdown, trowel, or roll-on
- **KU6.** the mixing ratios, dilution requirements, and the use of additives for texture coatings
- **KU7.** the compatibility of different components to achieve the desired consistency, and ensure uniformity in texture patterns
- **KU8.** different texture patterns and their visual effects, such as orange peel, popcorn, skip trowel or sand swirl
- **KU9.** the application technique, equipment, and adjustments required for each texture pattern
- **KU10.** the drying and curing process for texture coatings, including drying times, temperature requirements, and environmental conditions for proper adhesion, film formation, and texture development
- **KU11.** the appropriate safety measures in texture coating, including appropriate ventilation and the use of relevant PPE
- **KU12.** the appropriate handling and storage of coating materials
- **KU13.** the procedure of repairing and maintaining textured surfaces, including techniques for patching or repairing damaged areas, matching texture patterns, and touch-up procedures for the longevity and aesthetic appeal of texture-coated surfaces
- **KU14.** the colour matching and customization of texture coatings, including colour theory, colour mixing, and techniques for achieving desired colour variations and creating customized textured finishes









- **KU15.** the applicable quality control processes, such as visual inspection, texture pattern consistency, adhesion testing, or surface testing
- **KU16.** the applicable quality standards and specifications to ensure texture-coated surfaces meet the required performance and aesthetic criteria
- **KU17.** different waterproofing systems, such as liquid-applied membranes, elastomeric coatings, cementitious coatings, or sheet membranes
- **KU18.** the properties, application methods, curing times, and compatibility of waterproofing systems with different surfaces
- **KU19.** the criteria for selecting the appropriate waterproofing system for specific areas or substrates
- **KU20.** the procedure of evaluating the condition of surfaces that require waterproofing, including the identification of cracks, gaps, or areas prone to water penetration
- **KU21.** the causes of water infiltration, such as improper flashing, deteriorated caulking, or structural defects, to determine the best waterproofing solutions
- **KU22.** the surface preparation techniques for effective waterproofing, e.g. thorough surface cleaning, removal of dirt, debris, or loose material, repairing cracks or defects, and preparation of a smooth and sound substrate for waterproofing
- **KU23.** the use of different waterproofing products, such as waterproofing primers, sealants, membranes, or coatings
- **KU24.** the properties, performance characteristics and compatibility of different waterproofing products with different substrates and application methods
- **KU25.** the appropriate waterproofing techniques and equipment, e.g. brush or roller application, spray application, trowel or squeegee application, or specialized equipment for specific waterproofing systems
- **KU26.** the correct application thickness and coverage rates to achieve the desired waterproofing performance
- **KU27.** the appropriate joint and seam treatment techniques, using compatible sealants or adhesives for sealing gaps, joints, or penetrations
- **KU28.** the importance of ensuring watertight connections between different building elements
- **KU29.** the local building codes and regulations related to waterproofing, including minimum coating thickness, flashing details, or installation guidelines to ensure the effectiveness of the waterproofing system
- **KU30.** the importance of regular maintenance for waterproofing systems, including the maintenance procedures, such as inspections, resealing, or recoating, to preserve the waterproofing integrity
- **KU31.** the quality control processes, such as conducting adhesion tests, water testing, or moisture content measurements to ensure the waterproofing system meets the desired performance standards
- **KU32.** the properties, including texture, pattern, durability, and application methods for different types of wallpapers available, such as vinyl, non-woven, fabric, or grasscloth
- **KU33.** the criteria for selecting the appropriate wallpaper for specific areas and desired finishes
- **KU34.** the surface preparation techniques for a smooth and long-lasting wallpaper application, including cleaning methods, repairing cracks or imperfections, removing old wallpaper or loose paint, and preparing a smooth surface









- **KU35.** the procedure of accurately measuring the wall dimensions and estimating the required amount of wallpaper
- **KU36.** the pattern repeats and matching considerations for efficient material utilization and minimizing errors during installation
- **KU37.** different types of wallpaper adhesives and their specific application requirements
- **KU38.** the appropriate adhesive selection, mixing ratios, and use of appropriate tools, such as brushes or rollers, for proper adhesive application
- **KU39.** the procedure of cutting and trimming wallpapers accurately
- **KU40.** the appropriate techniques, tools (such as utility knives or scissors), and considerations for pattern matching or alignment to achieve precise cuts and seamless joins
- **KU41.** the techniques for hanging wallpapers, such as vertical or horizontal installation, drop matching, or reverse hanging
- **KU42.** the appropriate wallpaper handling and installation techniques to avoid air bubbles or wrinkles
- KU43. pattern matching and alignment for wallpapers with repetitive patterns
- **KU44.** how to align patterns vertically or horizontally to achieve a seamless transition between wallpaper strips, and ensure pattern continuity to enhance the overall aesthetic appeal
- **KU45.** the techniques for handling corners, edges, and trims, including how to properly wrap corners, trim excess wallpaper, and achieve clean and sharp edges for a polished finish
- **KU46.** the use of seam rollers or smoothing tools to ensure proper adhesion and eliminate air bubbles or wrinkles
- **KU47.** the correct pressure, technique, and timing for seam rolling for wallpaper installation
- **KU48.** the techniques for wallpaper removal and maintenance, including the use of relevant wallpaper removal tools

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on their priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Apply texture coat and decorative paint finishes	11	15	-	3
<b>PC1.</b> determine the work requirements concerning the application of texture coat and other decorative paint finishes	-	-	-	-
<b>PC2.</b> select the appropriate materials, tools and equipment for the selected texture coat/ decorative paint finishes	-	-	-	-
<b>PC3.</b> mix and adjust the texture coat/decorative paint finish viscosity for application	-	-	-	-
<b>PC4.</b> apply texture paint using spray equipment to achieve the specified finish	-	-	-	-
<b>PC5.</b> use brushes and rollers following the recommended measures to achieve the required finish	-	-	-	-
<b>PC6.</b> lay out the stencil design on the work area using tapes and apply paint to achieve the required design	-	-	-	-
<b>PC7.</b> identify defects in the coating and take appropriate corrective measures to achieve the required finish	-	-	-	-
Carry out waterproofing	10	20	-	3
<b>PC8.</b> assess the area requiring waterproofing and plan accordingly	-	-	-	-
<b>PC9.</b> select the best-suited materials for the assessed area	-	-	-	-
<b>PC10.</b> mix the waterproofing materials in the recommended ratio to achieve the specified quality	-	-	-	-
<b>PC11.</b> select the appropriate application method based on the area and type of surface and waterproofing material	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> apply the waterproofing material appropriately following the selected application method	-	-	-	-
<b>PC13.</b> identify issues with waterproofing and take appropriate corrective measures	-	-	-	-
Carry out wallpaper application	9	25	-	4
PC14. determine the wallpaper application requirements and plan accordingly	-	-	-	-
<b>PC15.</b> arrange the appropriate types and quantity of wallpaper and glue for wallpaper application, ensuring adherence to the applicable criteria, e.g. design and pattern	-	-	-	-
<b>PC16.</b> select the appropriate tools and equipment for wallpaper application and check their suitability for use	-	-	-	-
<b>PC17.</b> select the appropriate surface preparation method according to the substrate, finish and environmental requirements	-	-	-	-
<b>PC18.</b> prepare the surface for wallpaper application by removing the existing coating/wallpaper, and loose debris, repairing, stopping and filling imperfections, and sanding	-	-	-	-
<b>PC19.</b> seal the substrate surface using appropriate materials	-	-	-	-
<b>PC20.</b> prepare the adhesive/ glue as per the manufacturer's instructions	-	-	-	-
<b>PC21.</b> apply wallpaper to the prepared wall ensuring an even surface, plumb paper, and matching pattern	-	-	-	-
<b>PC22.</b> trim the wallpaper appropriately around the fittings with minimal impact on the surroundings	-	-	-	-
PC23. remove any residue for a clean finish	-	-	-	_
NOS Total	30	60	-	10









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0517
NOS Name	Carry out texture coating, waterproofing and wallpaper application
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Construction Painting
NSQF Level	3.5
Credits	1
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023









### **DGT/VSQ/N0101: Employability Skills (30 Hours)**

### **Description**

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

### Scope

The scope covers the following:

- Introduction to Employability Skills
- Constitutional values Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

### **Elements and Performance Criteria**

#### Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

#### Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

**PC2.** identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

#### Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

**PC3.** explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

#### Basic English Skills

To be competent, the user/individual on the job must be able to:

**PC4.** speak with others using some basic English phrases or sentences

#### Communication Skills

To be competent, the user/individual on the job must be able to:

**PC5.** follow good manners while communicating with others

**PC6.** work with others in a team









#### **Diversity & Inclusion**

To be competent, the user/individual on the job must be able to:

- **PC7.** communicate and behave appropriately with all genders and PwD
- **PC8.** report any issues related to sexual harassment

#### Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- **PC9.** use various financial products and services safely and securely
- PC10. calculate income, expenses, savings etc.
- **PC11.** approach the concerned authorities for any exploitation as per legal rights and laws

### Essential Digital Skills

To be competent, the user/individual on the job must be able to:

- PC12. operate digital devices and use its features and applications securely and safely
- **PC13.** use internet and social media platforms securely and safely

#### Entrepreneurship

To be competent, the user/individual on the job must be able to:

- PC14. identify and assess opportunities for potential business
- PC15. identify sources for arranging money and associated financial and legal challenges

#### **Customer Service**

To be competent, the user/individual on the job must be able to:

- **PC16.** identify different types of customers
- **PC17.** identify customer needs and address them appropriately
- **PC18.** follow appropriate hygiene and grooming standards

#### Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

- PC19. create a basic biodata
- **PC20.** search for suitable jobs and apply
- PC21. identify and register apprenticeship opportunities as per requirement

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** need for employability skills
- **KU2.** various constitutional and personal values
- **KU3.** different environmentally sustainable practices and their importance
- **KU4.** Twenty first (21st) century skills and their importance
- **KU5.** how to use basic spoken English language
- **KU6.** Do and dont of effective communication
- **KU7.** inclusivity and its importance
- KU8. different types of disabilities and appropriate communication and behaviour towards PwD
- **KU9.** different types of financial products and services









- **KU10.** how to compute income and expenses
- KU11. importance of maintaining safety and security in financial transactions
- **KU12.** different legal rights and laws
- **KU13.** how to operate digital devices and applications safely and securely
- KU14. ways to identify business opportunities
- KU15. types of customers and their needs
- **KU16.** how to apply for a job and prepare for an interview
- **KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** communicate effectively using appropriate language
- GS2. behave politely and appropriately with all
- **GS3.** perform basic calculations
- **GS4.** solve problems effectively
- **GS5.** be careful and attentive at work
- **GS6.** use time effectively
- **GS7.** maintain hygiene and sanitisation to avoid infection









### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the job requirements	-	-	-	-
Constitutional values - Citizenship	1	1	-	-
<b>PC2.</b> identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
<b>PC3.</b> explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
Basic English Skills	2	3	-	-
<b>PC4.</b> speak with others using some basic English phrases or sentences	-	-	-	-
Communication Skills	1	1	-	-
<b>PC5.</b> follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
<b>PC7.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
Financial and Legal Literacy	3	4	-	-
<b>PC9.</b> use various financial products and services safely and securely	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
<b>PC11.</b> approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
<b>PC12.</b> operate digital devices and use its features and applications securely and safely	-	-	-	-
<b>PC13.</b> use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
<b>PC14.</b> identify and assess opportunities for potential business	-	-	-	-
<b>PC15.</b> identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
PC16. identify different types of customers	-	-	-	-
<b>PC17.</b> identify customer needs and address them appropriately	-	-	-	-
<b>PC18.</b> follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-









### **National Occupational Standards (NOS) Parameters**

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	30/04/2025
Next Review Date	30/04/2028
NSQC Clearance Date	30/04/2025

### Assessment Guidelines and Assessment Weightage

#### **Assessment Guidelines**

- 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 knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC.
- 3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below.
- 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
- 5. The passing percentage for each QP will be 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% individually in each NOS.
- 6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.









- 7. The trainee shall be provided with a chance to repeat the test to correct their procedures in case of improper performance, with a deduction of marks for each iteration.
- 8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
- 9. 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 within the specified timeframe set by SSC.
- 10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Minimum Aggregate Passing % at QP Level: 70

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

### **Assessment Weightage**

#### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0515.Interact and engage with customers for paint application service	30	60	0	10	100	15
CON/N0505.Apply OBD, acrylic and emulsion paints on masonry surfaces	30	60	0	10	100	15
CON/N0506.Apply paint on metallic/ structural steel fabricated assemblies	30	60	0	10	100	10
CON/N0507.Apply, paint, varnish and polish on wooden surfaces	30	60	0	10	100	10
CON/N0510.Carry out repair of various painting faults	30	60	0	10	100	10
CON/N0516.Carry out industrial liquid painting	30	60	0	10	100	10
CON/N0517.Carry out texture coating, waterproofing and wallpaper application	30	60	0	10	100	10









National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	0	0	100	5
CON/N8002.Plan and organize work to meet expected outcomes	30	70	0	0	100	5
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	0	0	100	5
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	320	660	0	70	1050	100









# **Acronyms**

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
EHS	Environmental, Health, and Safety
MCQ	Multiple-Choice Questions
OBD	Oil Bound Distemper
PPE	Personal Protective Equipment
UV	Ultraviolet









# Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a 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 quality of performance required.









Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.