



Mason Stone

Electives: Dry Cladding/ Wet Cladding

Options: Teraazo and Mosaic flooring

QP Code: CON/Q0115

Version: 1.0

NSQF Level: 4

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



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CON/Q0115: Mason Stone

Brief Job Description

Mason stone is responsible for identifying, cutting, shaping, laying, fixing and finishing the various stones on different surfaces using appropriate tools and equipment as per specified standards, pattern and within dimensional accuracy

Personal Attributes

The mason stone is expected to be physically fit to work across various locations with varied environmental conditions. The person should be organized, diligent, methodical, safety-conscious, and a prompt decisionmaker. In addition to being a team player, the individual should have good communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N0116: Apply grouts and sealants for flooring and cladding works](#)
2. [CON/N0155: Mark and cut natural stones as per design pattern](#)
3. [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
4. [CON/N8002: Plan and organize work to meet expected outcomes](#)
5. [CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)

Electives(*mandatory to select at least one*):

Elective 1: Dry Cladding

This unit describes the skills and knowledge required to prepare, provide and lay stones for dry cladding works using appropriate tools and equipment as per the approved schedule, drawings and specifications.

1. [CON/N0149: Carry out dry cladding works with natural stones](#)

Elective 2: Wet Cladding

This unit describes the skills & knowledge required to prepare, provide and lay stones for wet cladding works using appropriate tools and equipment as per the approved schedule, drawings and specifications.

1. [CON/N0150: Carry out wet cladding works with natural stones](#)



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2. [CON/N0151: Carry out flooring works for natural stones](#)

Options(Not mandatory):

Option : Teraazo and Mosaic flooring

This unit describes the skills and knowledge required to carry out mosaic and terrazzo floor finishes

1. [CON/N0152: Carry out mosaic and terrazzo flooring works](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
Country	India
NSQF Level	4
Credits	NA
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7112.0100
Minimum Educational Qualification & Experience	8th Class (ITI (2 years)) with 2 Years of experience in same occupation OR 10th Class with 2 Years of experience in same occupation OR Certificate-NSQF (level 3) with 2 Years of experience in same occupation
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	31/03/2022
Next Review Date	31/03/2025
Deactivation Date	30/09/2022



Qualification Pack



NSQC Approval Date	31/03/2022
Version	1.0
Reference code on NQR	2022/CON/CSDCI/05602
NQR Version	1.0



CON/N0116: Apply grouts and sealants for flooring and cladding works

Description

This unit describes the skills & knowledge required to check for voids and uses grouts to seal joints for tile, stone, marble, and granite for flooring and cladding works

Scope

The scope covers the following :

- Carry out preparatory work for grouting of tile, stone, marble, and granite works
- Apply grout and sealant to seal the void or gap between the tiles, stones, marble, and granite
- Check for line, level & alignment

Elements and Performance Criteria

Carry out preparatory work for grouting of tile, stone, marble and granite works

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

- PC1.** read and interpret the working drawings / sketches prior to commencement of work
- PC2.** ensure curing of placed stone, marble & granite tiles
- PC3.** ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines
- PC4.** remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface
- PC5.** prepare different types of grouts as per surface requirements and manufacturers specifications
- PC6.** check grout material is of approved color and shade & as per pattern
- PC7.** check that grout material is of approved type (sanded, un sanded,) as per design/pattern requirements

Apply grout and sealant to seal the void or gap between the tiles, stones, marble & granite

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

- PC8.** apply the grout between grout lines/joints using appropriate tool
- PC9.** press the grout into the joint using appropriate tools and technique
- PC10.** handle grout float edge properly and prevent it from digging out the grout lines
- PC11.** use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability
- PC12.** remove excess grout from the surface to avoid any grout haze on the surface
- PC13.** check and ensure that the grout was cured prior to application of sealant
- PC14.** polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints
- PC15.** add additive to cementations grouts as a substitute for water as per specifications
- PC16.** ensure proper care is taken for moisture sensitive and light colored natural stones to prevent stain ingress
- PC17.** ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces



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Check for line , level & alignment

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

PC18. check and provide required level and specified slope

PC19. check vertical and horizontal alignment using appropriate tools

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for grouting works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** simple sketches for tiling works
- KU7.** basic principles of measurement
- KU8.** standard specification of all grouting tools and materials along with their care and maintenance
- KU9.** manufacturers instructions on grout suitability, mixing, curing and application to ensure optimum performance
- KU10.** how to select and use tools and equipment such as: measuring tape/rule, trowels, grout floats, surface cleaning sponges
- KU11.** different types of grouts used for respective tiles /stones including: cement based grout : Sanded / Non Sanded epoxy based grout
- KU12.** different types of process used to prepare the respective grouts for tiles and stones
- KU13.** standard procedure applicable for the application of grouts on the vertical or the horizontal surface
- KU14.** different types of liquid polymeric additives (mostly blends of acrylics and latex) added to cementations grout and their effect
- KU15.** how to match grout with approved color and shades, as per design

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace



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- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work for grouting of tile, stone, marble and granite works</i>	9	21	-	-
PC1. read and interpret the working drawings / sketches prior to commencement of work	-	-	-	-
PC2. ensure curing of placed stone, marble & granite tiles	-	-	-	-
PC3. ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines	-	-	-	-
PC4. remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface	-	-	-	-
PC5. prepare different types of grouts as per surface requirements and manufacturers specifications	-	-	-	-
PC6. check grout material is of approved color and shade & as per pattern	-	-	-	-
PC7. check that grout material is of approved type (sanded, un sanded,) as per design/pattern requirements	-	-	-	-
<i>Apply grout and sealant to seal the void or gap between the tiles, stones, marble & granite</i>	15	35	-	-
PC8. apply the grout between grout lines/joints using appropriate tool	-	-	-	-
PC9. press the grout into the joint using appropriate tools and technique	-	-	-	-
PC10. handle grout float edge properly and prevent it from digging out the grout lines	-	-	-	-
PC11. use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability	-	-	-	-
PC12. remove excess grout from the surface to avoid any grout haze on the surface	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. check and ensure that the grout was cured prior to application of sealant	-	-	-	-
PC14. polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints	-	-	-	-
PC15. add additive to cementations grouts as a substitute for water as per specifications	-	-	-	-
PC16. ensure proper care is taken for moisture sensitive and light colored natural stones to prevent stain ingress	-	-	-	-
PC17. ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces	-	-	-	-
<i>Check for line , level & alignment</i>	6	14	-	-
PC18. check and provide required level and specified slope	-	-	-	-
PC19. check vertical and horizontal alignment using appropriate tools	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0116
NOS Name	Apply grouts and sealants for flooring and cladding works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0155: Mark and cut natural stones as per design pattern

Description

This unit describes the skills and knowledge required to measure, mark and cut natural stones as per the design requirements

Scope

The scope covers the following :

- Carry out preparatory works for cutting of natural stones
- Cut and shape the natural stones into desired shape and size as per the design pattern

Elements and Performance Criteria

Carry out preparatory works for cutting of natural stones

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

- PC1.** read and interpret work drawings or sketches
- PC2.** measure dimensions of surface and ensure its adequacy for laying of natural stones
- PC3.** carry out necessary markings on surface to provide direction for laying of natural stone
- PC4.** ensure the stone is free from any damage /cracks
- PC5.** clean the surface of the natural stones of any grease, dust, clay and any other dirt material

Cut and shape the natural stones into desired shape and size as per the design pattern

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

- PC6.** mark the pattern for cutting ensuring adequate markings for electrical and plumbing requirements
- PC7.** cut and grind the natural stone to desired shape and size as per design pattern using appropriate tools.
- PC8.** prepare the sides, edges & bed of stone for proper bonding

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for marking and cutting natural stones
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** basics sketches of the area / surface on which stones are to be laid
- KU7.** basic techniques and principles for surface preparation prior to laying stones



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- KU8.** measurement of stones and stone covered area
- KU9.** different types of natural stones such as Granite, Marble, Limestone, Soapstone, Travertine, Onyx, Slate, Quartzite, etc.
- KU10.** basic properties and use of different types of natural stones
- KU11.** standard specification of all masonry tiling tools and materials required for laying of natural stones along with their care and maintenance
- KU12.** how to select and use basic tools and tackles for laying stones such as: measuring tape/rule, hammers, mallets, wedges, power wet saws like Circular saw, Specialty rail saw
- KU13.** various techniques / procedures for cutting natural stones to the respective shape and size as per design requirements

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory works for cutting of natural stones</i>	6	14	-	-
PC1. read and interpret work drawings or sketches	-	-	-	-
PC2. measure dimensions of surface and ensure its adequacy for laying of natural stones	-	-	-	-
PC3. carry out necessary markings on surface to provide direction for laying of natural stone	-	-	-	-
PC4. ensure the stone is free from any damage /cracks	-	-	-	-
PC5. clean the surface of the natural stones of any grease, dust, clay and any other dirt material	-	-	-	-
<i>Cut and shape the natural stones into desired shape and size as per the design pattern</i>	24	56	-	-
PC6. mark the pattern for cutting ensuring adequate markings for electrical and plumbing requirements	-	-	-	-
PC7. cut and grind the natural stone to desired shape and size as per design pattern using appropriate tools.	-	-	-	-
PC8. prepare the sides, edges & bed of stone for proper bonding	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0155
NOS Name	Mark and cut natural stones as per design pattern
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N8001: Work effectively in a team to deliver desired results at the workplace

Description

This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results

Scope

The scope covers the following :

- Interact and communicate in an effective manner
- Support co-workers to execute the project requirements
- Practice inclusion

Elements and Performance Criteria

Interact and communicate in an effective manner

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

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** report any unresolved problem to the supervisor immediately
- PC4.** obtain instructions from superiors and respond on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement

Support co-workers to execute the project requirements

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

- PC7.** hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

Practice inclusion

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

- PC9.** maintain cultural inclusivity at work place
- PC10.** maintain disability friendly work practices
- PC11.** follow gender neutral practices at workplace
- PC12.** address discriminatory and offensive behaviour in a professional manner as per organizational policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities



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- KU2.** importance of effective communication
- KU3.** the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication used at workplace
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within the work area where interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for the smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender
- KU12.** legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read the communication regarding work completion, materials used, tools and tackles used, the resource required, etc,
- GS3.** speak in one or more languages, preferably in one of the local language of the site
- GS4.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS5.** communicate orally and effectively with co-workers considering their educational and social background
- GS6.** decide on what information is to be shared with co-workers within the team or to the interfacing gang of workers
- GS7.** plan work and organize the required resources in coordination with team members
- GS8.** complete all assigned task in coordination with team members
- GS9.** take initiative in resolving issues among co-workers or report the same to superiors
- GS10.** ensure best ways of coordination among team members
- GS11.** evaluate the complexity of task and determine if any guidance is required from superiors



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate in an effective manner</i>	18	42	-	-
PC1. pass on work related information/ requirement clearly to the team members	-	-	-	-
PC2. inform co-workers and superiors about any kind of deviations from work	-	-	-	-
PC3. report any unresolved problem to the supervisor immediately	-	-	-	-
PC4. obtain instructions from superiors and respond on the same	-	-	-	-
PC5. communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
PC6. seek clarification and advice as per the requirement	-	-	-	-
<i>Support co-workers to execute the project requirements</i>	6	14	-	-
PC7. hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
PC8. work together with co-workers in a synchronized manner	-	-	-	-
<i>Practice inclusion</i>	6	14	-	-
PC9. maintain cultural inclusivity at work place	-	-	-	-
PC10. maintain disability friendly work practices	-	-	-	-
PC11. follow gender neutral practices at workplace	-	-	-	-
PC12. address discriminatory and offensive behaviour in a professional manner as per organizational policy	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	TBD
Version	6.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N8002: Plan and organize work to meet expected outcomes

Description

This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome

Scope

The scope covers the following :

- Plan and prepare for work
- Organise required resources as per work plan
- Complete work as per the plan

Elements and Performance Criteria

Plan and prepare for work

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

- PC1.** identify the targets and timelines set by superiors
- PC2.** determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task
- PC3.** plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities
- PC4.** prepare the work areas in coordination with team members
- PC5.** plan for waste collection and disposal prior to and after completion of work

Organise required resources as per work plan

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

- PC6.** arrange the required manpower prior to commencement of work
- PC7.** organize the required materials, tools and tackles required for the task

Complete work as per the plan

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

- PC8.** engage allocated manpower in an appropriate manner
- PC9.** employ correct tools, tackles and equipment for the desired work
- PC10.** provide guidance to the subordinates to obtain desired outcome
- PC11.** use resources in an optimum manner to avoid any unnecessary wastage
- PC12.** use tools, tackles and equipment carefully to avoid damage
- PC13.** ensure the work processes adopted are in line with the specified standards and instructions
- PC14.** complete the work with the allocated resources within specified time
- PC15.** clean and organise the workplace after completion of task

Knowledge and Understanding (KU)



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The individual on the job needs to know and understand:

- KU1.** importance of proper housekeeping including safe waste disposal
- KU2.** policies, procedures and work targets set by superiors
- KU3.** how to identify work activities that need to be planned and organized
- KU4.** how to determine the task requirements
- KU5.** how to determine the quality requirements related to the task
- KU6.** how to undertake all aspect of planning and organizing the task, including interpretation of task, reading drawing/schedules, arranging resources, reporting problems etc.
- KU7.** how to implement the planned activities
- KU8.** how to use available resources in a judicious and appropriate manner to minimize wastages or damage

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably the local language at the site
- GS2.** read communication from co-workers, superiors and notices from other departments as per requirement of the level
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc.
- GS5.** communicate effectively with co-workers and subordinates
- GS6.** decide on what sequence is to be adopted for execution of work
- GS7.** plan and organize the materials, tools, tackles and equipment required to execute the work
- GS8.** complete all assigned task with proper planning and organizing
- GS9.** analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
- GS10.** evaluate potential solutions to minimize avoidable delays and wastages at the construction site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and prepare for work</i>	9	21	-	-
PC1. identify the targets and timelines set by superiors	-	-	-	-
PC2. determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task	-	-	-	-
PC3. plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities	-	-	-	-
PC4. prepare the work areas in coordination with team members	-	-	-	-
PC5. plan for waste collection and disposal prior to and after completion of work	-	-	-	-
<i>Organise required resources as per work plan</i>	6	14	-	-
PC6. arrange the required manpower prior to commencement of work	-	-	-	-
PC7. organize the required materials, tools and tackles required for the task	-	-	-	-
<i>Complete work as per the plan</i>	15	35	-	-
PC8. engage allocated manpower in an appropriate manner	-	-	-	-
PC9. employ correct tools, tackles and equipment for the desired work	-	-	-	-
PC10. provide guidance to the subordinates to obtain desired outcome	-	-	-	-
PC11. use resources in an optimum manner to avoid any unnecessary wastage	-	-	-	-
PC12. use tools, tackles and equipment carefully to avoid damage	-	-	-	-
PC13. ensure the work processes adopted are in line with the specified standards and instructions	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. complete the work with the allocated resources within specified time	-	-	-	-
PC15. clean and organise the workplace after completion of task	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N8002
NOS Name	Plan and organize work to meet expected outcomes
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	TBD
Version	5.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N9001: Work according to personal health, safety and environment protocols at construction site

Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocols at construction site

Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

Elements and Performance Criteria

Follow safety norms as defined by the organization

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

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.** select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline
- PC6.** identify near miss, unsafe condition and unsafe act

Adopt healthy & safe work practices

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

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)
- PC8.** handle all required tools, tackles, materials and equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocols and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

Implement good housekeeping practices

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

- PC13.** collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature



PC14. apply ergonomic principles wherever required

Follow infection control guidelines as per applicability

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

PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices

PC16. clean and disinfect all materials, tools and supplies before and after use

PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines

KU2. types of safety hazards at construction sites

KU3. basic ergonomic principles as per applicability

KU4. the procedure for responding to accidents and other emergencies at site

KU5. use of appropriate personal protective equipment based on various working conditions

KU6. importance of handling tools, equipment, and materials as per applicable norms

KU7. effect of construction material on health and environments as per applicability

KU8. various environmental protection methods as per applicability

KU9. storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location

KU10. how to keep the workplace neat and tidy so as to be safe

KU11. how to use hazardous material in a safe and appropriate manner as per applicability

KU12. types of fire

KU13. procedure of operating different types of fire extinguishers

KU14. safety relevant to tools, tackles, and equipment as per applicability

KU15. housekeeping activities relevant to task

KU16. ways of transmission of infection

KU17. ways to manage infectious risks at the workplace

KU18. different methods of cleaning, disinfection, sterilization, and sanitization

KU19. symptoms of infection like fever, cough, redness, swelling, and inflammation

Generic Skills (GS)

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

GS1. write in at least one language, preferably in the local language of the site

GS2. fill safety formats for near miss, unsafe conditions and safety suggestions

GS3. read in one or more language, preferably in the local language of the site

GS4. speak in one or more language, preferably in one of the local language of the site



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- GS5.** listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk
- GS6.** identify potential safety risks and report to the appropriate authority
- GS7.** assess and analyze areas which may affect health, safety and environment protocol on the site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by the organization</i>	6	14	-	-
PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
PC5. select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline	-	-	-	-
PC6. identify near miss, unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	15	35	-	-
PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)	-	-	-	-
PC8. handle all required tools, tackles, materials and equipment safely	-	-	-	-
PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
PC10. check and install all safety equipment as per standard guidelines	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. follow safety protocols and practices as laid down by site EHS department	-	-	-	-
PC12. obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	6	14	-	-
PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	3	7	-	-
PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
PC16. clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	4
Credits	TBD
Version	6.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0149: Carry out dry cladding works with natural stones

Description

This OS unit describes the knowledge and the skills required to carry out dry cladding works with natural stones

Scope

The scope covers the following :

- Store the stones and prepare the surface for cladding works
- Perform dry cladding works using natural stones as per requirements

Elements and Performance Criteria

Store the stones and prepare the surface for cladding works

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

- PC1.** ensure natural stones is stored in a safe and accessible manner when not in use
- PC2.** ensure stone slabs are placed in vertical position to prevent contact with earth surface
- PC3.** read/interpret work drawings/sketches for cladding works
- PC4.** check existing wall surface for cracks and undulations
- PC5.** check surface for squareness, slope, surface plane, & compactness
- PC6.** install button marks or level pads prior to commencement of cladding works
- PC7.** carry out necessary markings on surface to provide direction for laying of natural stones
- PC8.** check surface for completion of embedded surfaces and make necessary provisions for the same

Perform dry cladding works using natural stones as per requirements

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

- PC9.** select and use suitable anchoring tools and ensure adequate anchorage of steel anchors as per standard practices
- PC10.** drill holes to secure anchors on walls for dry cladding as per markings and drawings
- PC11.** fix anchors/angles, fasteners and other accessories in the wall for maintaining proper alignment in horizontal and vertical direction
- PC12.** place stones as per standard method for dry cladding works and secure the same by suitable method
- PC13.** maintain specified gap between back wall and stone lining to provide for adequate drainage in dry cladding works
- PC14.** check line, level & alignment of cladding works as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for dry cladding works



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- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** basics sketches of the area / surface on which stones are to be laid
- KU7.** basic techniques and principles for preparation of vertical surfaces for cladding works
- KU8.** basic principles of measurement
- KU9.** different types of natural stones
- KU10.** process of handling, shifting and placing of natural stones
- KU11.** procedure to be followed for dry cladding with natural stones
- KU12.** basic properties, and use of different types of natural stones
- KU13.** standard specification of all tools and materials required for cladding works
- KU14.** care and maintenance required for the respective tools and equipments
- KU15.** how to select and use basic tools and tackles for stone
- KU16.** use of anchoring tools for cladding works
- KU17.** tools and techniques used for cutting natural stones to the specified shape and size
- KU18.** difference between wet and dry cladding
- KU19.** use of mechanical ties and anchor clip for dry cladding
- KU20.** use of anchoring tools for cladding works
- KU21.** special work requirements related to the imported marble, granite etc. for dry cladding work

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Store the stones and prepare the surface for cladding works</i>	6	14	-	-
PC1. ensure natural stones is stored in a safe and accessible manner when not in use	-	-	-	-
PC2. ensure stone slabs are placed in vertical position to prevent contact with earth surface	-	-	-	-
PC3. read/interpret work drawings/sketches for cladding works	-	-	-	-
PC4. check existing wall surface for cracks and undulations	-	-	-	-
PC5. check surface for squareness, slope, surface plane, & compactness	-	-	-	-
PC6. install button marks or level pads prior to commencement of cladding works	-	-	-	-
PC7. carry out necessary markings on surface to provide direction for laying of natural stones	-	-	-	-
PC8. check surface for completion of embedded surfaces and make necessary provisions for the same	-	-	-	-
<i>Perform dry cladding works using natural stones as per requirements</i>	24	56	-	-
PC9. select and use suitable anchoring tools and ensure adequate anchorage of steel anchors as per standard practices	-	-	-	-
PC10. drill holes to secure anchors on walls for dry cladding as per markings and drawings	-	-	-	-
PC11. fix anchors/angles, fasteners and other accessories in the wall for maintaining proper alignment in horizontal and vertical direction	-	-	-	-
PC12. place stones as per standard method for dry cladding works and secure the same by suitable method	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. maintain specified gap between back wall and stone lining to provide for adequate drainage in dry cladding works	-	-	-	-
PC14. check line, level & alignment of cladding works as per requirement	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0149
NOS Name	Carry out dry cladding works with natural stones
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0150: Carry out wet cladding works with natural stones

Description

This OS unit describes the knowledge and the skills required to carry out wet cladding works with natural stones

Scope

The scope covers the following :

- Store the stones and prepare the surface for wet cladding works
- Perform wet cladding works using natural stones as per requirements

Elements and Performance Criteria

Store the stones and prepare the surface for wet cladding works

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

- PC1.** ensure natural stones is stored in a safe and accessible manner when not in use
- PC2.** ensure stone slabs are placed in vertical position to prevent contact with earth surface
- PC3.** read/interpret work drawings/sketches for cladding works
- PC4.** check existing wall surface for cracks & undulations
- PC5.** check surface for squareness, slope, surface plane, & compactness
- PC6.** install button marks or level pads prior to commencement of cladding works
- PC7.** carry out necessary markings on surface to provide direction for laying of natural stones
- PC8.** check surface for completion of embedded surfaces and make necessary provisions for the same
- PC9.** ensure cement mortar is prepared as per requirement and specification

Perform wet cladding works using natural stones as per requirements

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

- PC10.** apply cement mortar as per specifications and requirements
- PC11.** fix angles and fasteners for wet cladding works and place stones as per standard method using specified mortar for bonding
- PC12.** carry out grouting and pointing between stones
- PC13.** maintain grooves in stone slabs as per drawing/pattern and fill the same with appropriate joint sealant
- PC14.** remove excess mortar from joints, edges using appropriate tools
- PC15.** check line, level & alignment of cladding works as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for wet cladding works



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- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** basics sketches of the area / surface on which stones are to be laid
- KU7.** basic techniques and principles for preparation of vertical surfaces for cladding works
- KU8.** measurement of stones and stone covered area
- KU9.** different types of natural stones
- KU10.** process of handling, shifting and placing of natural stones
- KU11.** procedure to be followed for wet cladding with natural stones
- KU12.** basic properties, and use of different types of natural stones
- KU13.** standard specification of all tools and materials required for cladding works
- KU14.** care and maintenance required for the respective tools and equipments
- KU15.** how to select and use basic tools and tackles for stone
- KU16.** use of anchoring tools for cladding works
- KU17.** tools and techniques used for cutting natural stones to the specified shape and size
- KU18.** difference between wet and dry cladding
- KU19.** use of mechanical ties and anchor clip for dry and wet cladding
- KU20.** use of anchoring tools for cladding works
- KU21.** special work requirements related to the imported marble, granite etc. for wet cladding work

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Store the stones and prepare the surface for wet cladding works</i>	6	14	-	-
PC1. ensure natural stones is stored in a safe and accessible manner when not in use	-	-	-	-
PC2. ensure stone slabs are placed in vertical position to prevent contact with earth surface	-	-	-	-
PC3. read/interpret work drawings/sketches for cladding works	-	-	-	-
PC4. check existing wall surface for cracks & undulations	-	-	-	-
PC5. check surface for squareness, slope, surface plane, & compactness	-	-	-	-
PC6. install button marks or level pads prior to commencement of cladding works	-	-	-	-
PC7. carry out necessary markings on surface to provide direction for laying of natural stones	-	-	-	-
PC8. check surface for completion of embedded surfaces and make necessary provisions for the same	-	-	-	-
PC9. ensure cement mortar is prepared as per requirement and specification	-	-	-	-
<i>Perform wet cladding works using natural stones as per requirements</i>	24	56	-	-
PC10. apply cement mortar as per specifications and requirements	-	-	-	-
PC11. fix angles and fasteners for wet cladding works and place stones as per standard method using specified mortar for bonding	-	-	-	-
PC12. carry out grouting and pointing between stones	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. maintain grooves in stone slabs as per drawing/pattern and fill the same with appropriate joint sealant	-	-	-	-
PC14. remove excess mortar from joints, edges using appropriate tools	-	-	-	-
PC15. check line, level & alignment of cladding works as per requirement	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0150
NOS Name	Carry out wet cladding works with natural stones
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0151: Carry out flooring works for natural stones

Description

This OS unit describes the knowledge and the skills required to carry out flooring works with natural stones

Scope

The scope covers the following :

- Carry out preparatory works prior to flooring works
- Lay, place and fix the natural stones for flooring works
- Finish and polish natural stones

Elements and Performance Criteria

Carry out preparatory works prior to flooring works

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

- PC1.** read and interpret work drawings or sketches
- PC2.** ensure surface is free from any debris or obstructions
- PC3.** measure dimensions of surface and ensure its adequacy for laying of natural stones
- PC4.** check base surface for squareness, slope & surface plane
- PC5.** carry out necessary markings on surface to provide direction for laying of natural stone
- PC6.** check surface for completion of embedded surfaces and make necessary provisions for the same
- PC7.** install button marks or level pads as per requirements
- PC8.** ensure preparation of suitable mortar using cement, sand and water in required ratio
- PC9.** ensure preparation of bed mortar, cement slurry and cement paste as per specification

Lay and Fix Natural Stones for flooring works

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

- PC10.** determine alignment and lay floor patterns using appropriate tools
- PC11.** apply cement paste / adhesives on the base of the stone and set the natural stone in place as per the design or pattern
- PC12.** check for hollowness of set stones using wooden mallet
- PC13.** fill any depressions / gaps with suitable patching material
- PC14.** pour and spread mortar or grout on natural stones as per applicability
- PC15.** perform surface finishing work by rubbing and grinding using appropriate tools
- PC16.** polish the natural stone by using sand and water, pumice stone and machine as per applicability

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



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- KU1.** standard practices for laying and fixing natural stones
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** basics sketches of the area / surface on which stones are to be laid
- KU7.** basic techniques and principles for preparation of vertical surfaces for cladding works
- KU8.** measurement of stones and stone covered area
- KU9.** different types of natural stones such as Granite, Marble, Limestone, Soapstone, Travertine, Onyx, Slate, Quartzite, etc.
- KU10.** basic properties and use of different types of natural stones
- KU11.** standard specification of all masonry tiling tools and materials required for laying of natural stones along with their care and maintenance
- KU12.** how to select and use basic tools and tackles for laying stones such as measuring tape/rule, hammers, mallets, wedges, power wet saws like Circular saw, Specialty rail saw, etc.
- KU13.** process of handling, shifting and placing of tiles and natural stones
- KU14.** various techniques / procedures for cutting natural stones to the respective shape and size as per design requirements
- KU15.** methods and techniques of preparing bed mortar, cement slurry and cement paste required as per types of surface and natural stone
- KU16.** properties of mortar and its mix proportion ratios
- KU17.** method of fixing stones for flooring works
- KU18.** methods and techniques of finishing and polishing of stones

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory works prior to flooring works</i>	6	14	-	-
PC1. read and interpret work drawings or sketches	-	-	-	-
PC2. ensure surface is free from any debris or obstructions	-	-	-	-
PC3. measure dimensions of surface and ensure its adequacy for laying of natural stones	-	-	-	-
PC4. check base surface for squareness, slope & surface plane	-	-	-	-
PC5. carry out necessary markings on surface to provide direction for laying of natural stone	-	-	-	-
PC6. check surface for completion of embedded surfaces and make necessary provisions for the same	-	-	-	-
PC7. install button marks or level pads as per requirements	-	-	-	-
PC8. ensure preparation of suitable mortar using cement, sand and water in required ratio	-	-	-	-
PC9. ensure preparation of bed mortar, cement slurry and cement paste as per specification	-	-	-	-
<i>Lay and Fix Natural Stones for flooring works</i>	24	56	-	-
PC10. determine alignment and lay floor patterns using appropriate tools	-	-	-	-
PC11. apply cement paste / adhesives on the base of the stone and set the natural stone in place as per the design or pattern	-	-	-	-
PC12. check for hollowness of set stones using wooden mallet	-	-	-	-
PC13. fill any depressions / gaps with suitable patching material	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. pour and spread mortar or grout on natural stones as per applicability	-	-	-	-
PC15. perform surface finishing work by rubbing and grinding using appropriate tools	-	-	-	-
PC16. polish the natural stone by using sand and water, pumice stone and machine as per applicability	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0151
NOS Name	Carry out flooring works for natural stones
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0152: Carry out mosaic and terrazzo flooring works

Description

This unit describes the skills and knowledge required to carry out mosaic and terrazzo floor finishes

Scope

The scope covers the following :

- Carry out mosaic flooring
- Carry out terrazzo flooring

Elements and Performance Criteria

Carry out mosaic flooring

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

- PC1.** ensure preparation of the surface of floor and make appropriate markings as per design
- PC2.** calculate the quantity of materials required for the mosaic flooring work
- PC3.** lay an underlying layer of concrete in specified ratio and thickness
- PC4.** prepare a base course of lime, marble and pozzolana material in specified ratio
- PC5.** cut and fix baton strips as per requirement to form panels
- PC6.** cut or break tiles, stone or other materials and place them as per design patterns and drawings
- PC7.** embed the broken tiles, marble pieces into base layer using stone roller
- PC8.** rub off surface to polish and smoothen the mosaic /terrazzo design surface
- PC9.** ensure proper curing of floor for a specified period of time prior to use

Carry out terrazzo flooring

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

- PC10.** ensure preparation of the surface of floor and make appropriate markings as per design
- PC11.** calculate the quantity of materials required for the terrazzo flooring work
- PC12.** lay an underlying layer of concrete in specified ratio and thickness
- PC13.** cut and fix baton strips as per requirement to form panels
- PC14.** mix epoxy mix with hardener and spread it within the strips as per applicability
- PC15.** prepare and spread an aggregate mix containing glass, marble, stone or chips with or without colour pigment as per specification
- PC16.** grind and polish the terrazzo floor once its thoroughly dry
- PC17.** ensure proper curing of floor for a specified period of time prior to use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices of flooring works



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- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** basics sketches of the area / surface on which flooring is to be done
- KU7.** basic principles of measurement along with simple geometry that may be required for flooring
- KU8.** basic techniques / methods of mosaic and terrazzo flooring on surfaces
- KU9.** standard specification of all flooring tools and materials along with their usage
- KU10.** methods of preparing surfaces for applications of mosaic and terrazzo flooring
- KU11.** methods of mosaic and terrazzo flooring
- KU12.** method of calculation of material required for mosaic and terrazzo flooring

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out mosaic flooring</i>	15	35	-	-
PC1. ensure preparation of the surface of floor and make appropriate markings as per design	-	-	-	-
PC2. calculate the quantity of materials required for the mosaic flooring work	-	-	-	-
PC3. lay an underlying layer of concrete in specified ratio and thickness	-	-	-	-
PC4. prepare a base course of lime, marble and pozzolana material in specified ratio	-	-	-	-
PC5. cut and fix baton strips as per requirement to form panels	-	-	-	-
PC6. cut or break tiles, stone or other materials and place them as per design patterns and drawings	-	-	-	-
PC7. embed the broken tiles, marble pieces into base layer using stone roller	-	-	-	-
PC8. rub off surface to polish and smoothen the mosaic /terrazzo design surface	-	-	-	-
PC9. ensure proper curing of floor for a specified period of time prior to use	-	-	-	-
<i>Carry out terrazzo flooring</i>	15	35	-	-
PC10. ensure preparation of the surface of floor and make appropriate markings as per design	-	-	-	-
PC11. calculate the quantity of materials required for the terrazzo flooring work	-	-	-	-
PC12. lay an underlying layer of concrete in specified ratio and thickness	-	-	-	-
PC13. cut and fix baton strips as per requirement to form panels	-	-	-	-
PC14. mix epoxy mix with hardener and spread it within the strips as per applicability	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. prepare and spread an aggregate mix containing glass, marble, stone or chips with or without colour pigment as per specification	-	-	-	-
PC16. grind and polish the terrazzo floor once its thoroughly dry	-	-	-	-
PC17. ensure proper curing of floor for a specified period of time prior to use	-	-	-	-
NOS Total	30	70	-	-



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0152
NOS Name	Carry out mosaic and terrazzo flooring works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

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)/ Element 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/ Element.
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.



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7. The trainee shall be provided with a chance to repeat the test to correct his 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.)

Minimum Passing % at NOS Level: 70

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0116.Apply grouts and sealants for flooring and cladding works	27	63	-	-	90	20
CON/N0155.Mark and cut natural stones as per design pattern	30	70	-	-	100	30
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	5
CON/N8002.Plan and organize work to meet expected outcomes	30	70	-	-	100	5
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	10



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
Total	147	343	-	-	490	70

Elective: 1 Dry Cladding

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0149.Carry out dry cladding works with natural stones	30	70	-	-	100	30
Total	30	70	0	0	100	30

Elective: 2 Wet Cladding

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0150.Carry out wet cladding works with natural stones	30	70	-	-	100	15
CON/N0151.Carry out flooring works for natural stones	30	70	-	-	100	15
Total	60	140	0	0	200	30

Optional: 1 Teraazo and Mosaic flooring

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0152.Carry out mosaic and terrazzo flooring works	30	70	-	-	100	15
Total	30	70	0	0	100	15



Qualification Pack





Qualification Pack



Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training



Qualification Pack



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.



Qualification Pack



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.