

Qualification Pack



Circular loom operator (Shuttle type)

QP Code: TSC/Q8401

Version: 1.0

NSQF Level: 4

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TSC/Q8401: Circular loom operator (Shuttle type)

Brief Job Description

The Circular loom operator (Shuttle type) is responsible for running the Circular loom (Shuttle type) under supervision by maintaining health, safety and security in the raffia industry.

Personal Attributes

Needs to have basic knowledge of loom operating procedure, tape break attending methods an eye for detail, and an alert mind.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TSC/N8401: Taking charge of shift and handing over shift to Circular loom operator \(Shuttle type\)](#)
2. [TSC/N8402: Running Circular Loom Shuttle type](#)
3. [TSC/N8403: Undertake warp threading in circular loom \(Shuttle type\)](#)
4. [TSC/N8404: Contribute quality weaving in Circular loom \(Shuttle type\)](#)
5. [TSC/N9011: Maintain work area, tools and machines in raffia sector](#)
6. [TSC/N9012: Working in a team in raffia sector](#)
7. [TSC/N9013: Maintain health, safety and security at work place in raffia sector](#)
8. [TSC/N9014: Comply with industry and organizational requirements in raffia sector](#)

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Technical Textiles - Raffia
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8151.99

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Minimum Educational Qualification & Experience	10th Class (Preferably) with 2-3 Years of experience in Circular Loom department (Experience is preferred but not mandatory)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	09/07/2017
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	22/08/2019
Version	1.0

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TSC/N8401: Taking charge of shift and handing over shift to Circular loom operator (Shuttle type)

Description

This unit is about taking charge of shift from previous shift Circular loom operator (Shuttle type) and relieving the responsibilities to the next shift Circular loom operator (Shuttle type)

Scope

This unit/task covers the following:

- taking charge of shift from Circular loom operator (Shuttle type)
- handing over shift to Circular loom operator (Shuttle type)

Elements and Performance Criteria

Taking charge of shift from Circular loom operator (Shuttle type)

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

1. come at least 10 - 15 minutes earlier to the work spot
2. Bring the necessary operational tools like J Hook, knife etc
3. Check for the availability of the weft & the condition of the same
4. Enquire with the previous shift operator for running parameters of fabric such as PPM, Mesh, Denier etc
5. Ensure the correct parameters are showing on the loom display
6. Check the condition of the running creels, for cross ends, ends pulling out particularly at the crease or side fold
7. Check the fabric for the running damages like end out, wrong winding, Side slippage, hole in fabric, weft catching, weft lashing in etc
8. Check for the size of the fabric roll & to see whether any indication is there in the cloth rolls
9. Check the cleanliness of the machines & other work areas
10. Check whether any spare/raw material/ tool / fabric/ any other material is under the machines or in the other work areas
11. Question the previous shift operator for any deviation

Handing Over Shift to Circular loom operator (Shuttle type)

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

12. Hand over the shift to the incoming operator in a proper manner & get clearance from the incoming counterpart before leaving the work spot
13. Convey instruction to the incoming shift operator if any
14. Report to his/ her shift superiors in case of absenteeism of incoming shift operator
15. Report to his/ her shift superior about the quality / production / safety issues/ any other issue faced in his/ her shift

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

- KU1.** Policies and procedures followed in the raffia sector relevant to own employment and performance conditions
- KU2.** Health, safety requirements, usage of personal protective equipment in the raffia industry
- KU3.** potential hazards associated with the machines and the safety precautions must be taken
- KU4.** protocol to obtain more information on work related tasks
- KU5.** Documentation and reporting formats
- KU6.** guidelines for storage & disposal of waste materials
- KU7.** Various types of tools and Material Handling equipments for production
- KU8.** Types of fabrics like Normal fabric, Ventilated fabric, Anti skid fabric, Leno fabric etc
- KU9.** Loom processing parameters like PPM, weave, fabric width etc

Generic Skills (GS)

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

- GS1.** write clear and short sentences
- GS2.** read and comprehend written instructions
- GS3.** communicate with supervisor appropriately
- GS4.** talk to others to convey information
- GS5.** apply problem-solving approaches in different situations
- GS6.** refer anomalies to the supervisor
- GS7.** seek clarification on problems from others
- GS8.** apply good attention to detail
- GS9.** operation of machine
- GS10.** how to operate various valve & traps
- GS11.** how to operate different material handling tools and equipment
- GS12.** how to check the quality of processed fabric
- GS13.** maintenance of cleanliness at work place
- GS14.** check your work is complete and free from errors

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from Circular loom operator (Shuttle type)</i>	36	56	-	-
1. come at least 10 - 15 minutes earlier to the work spot	4	6	-	-
2. Bring the necessary operational tools like J Hook, knife etc	4	6	-	-
3. Check for the availability of the weft & the condition of the same	4	6	-	-
4. Enquire with the previous shift operator for running parameters of fabric such as PPM, Mesh, Denier etc	4	6	-	-
5. Ensure the correct parameters are showing on the loom display	4	6	-	-
6. Check the condition of the running creels, for cross ends, ends pulling out particularly at the crease or side fold	4	6	-	-
7. Check the fabric for the running damages like end out, wrong winding, Side slippage, hole in fabric, weft catching, weft lashing in etc	4	6	-	-
8. Check for the size of the fabric roll & to see whether any indication is there in the cloth rolls	4	6	-	-
9. Check the cleanliness of the machines & other work areas	2	3	-	-
10. Check whether any spare/raw material/ tool / fabric/ any other material is under the machines or in the other work areas	1	2	-	-
11. Question the previous shift operator for any deviation	1	3	-	-
<i>Handing Over Shift to Circular loom operator (Shuttle type)</i>	4	4	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
12. Hand over the shift to the incoming operator in a proper manner & get clearance from the incoming counterpart before leaving the work spot	1	1	-	-
13. Convey instruction to the incoming shift operator if any	1	1	-	-
14. Report to his/ her shift superiors in case of absenteeism of incoming shift operator	1	1	-	-
15. Report to his/ her shift superior about the quality / production / safety issues/ any other issue faced in his/ her shift	1	1	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N8401
NOS Name	Taking charge of shift and handing over shift to Circular loom operator (Shuttle type)
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Technical Textiles- Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

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TSC/N8402: Running Circular Loom Shuttle type

Description

The unit deals with necessary skills, knowledge and attributes to run the Circular loom (Shuttle type) under supervision.

Scope

This unit/task covers the following:

- Ensure proper running of the loom
- Attend to breakages

Elements and Performance Criteria

Ensure proper running of the loom

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

1. Do patrol of the allotted looms
2. Check the signal lamp and identify the reason for loom stoppage
3. Attend the loom for warp breakage
4. Ensure the weavers/Spiral knot size is small with minimum tail end
5. Draw the mended warp tape using J hook through Heald wire, Reed ring as per the drawing order
6. Ensure the mended warp tape is passing through Creel Guide, Drop wire/ Tension rod, Maxi drug roller, Comb, Compensator, Heald wire, Reed ring
7. Replace with new Creel bobbin of the same denier for exhaust

Attend to breakages

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

8. Attend the loom for weft breakage
9. Ensure the weft tape is passing through shuttle guide, magnetic disc
10. Replace with new weft bobbin of the same denier for weft exhaust
11. Ensure the bobbin is fixed firmly inside the shuttle assembly
12. Bring the insertion finger to the front centre to see that there is no gap between the round ceramic & the fell of the fabric
13. Run the loom by pressing inching

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Policies and procedures followed in the raffia sector relevant to own employment and performance conditions
- KU2.** Health, safety requirements, usage of personal protective equipment in the raffia industry

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- KU3.** potential hazards associated with the machines and the safety precautions must be taken
- KU4.** protocol to obtain more information on work related tasks
- KU5.** contact person in case of queries
- KU6.** documentation and reporting formats
- KU7.** method of obtaining /giving feedback with respect to performance
- KU8.** work targets & review machine with superiors
- KU9.** guidelines for storage & disposal of waste materials
- KU10.** Process flow in the raffia industry
- KU11.** Types of available circular looms
- KU12.** Troubleshooting of circular looms
- KU13.** Various types of loom parts
- KU14.** Operating procedure of circular loom
- KU15.** Types of shuttle assembly
- KU16.** Threading procedure for new weave
- KU17.** Various types of weaves like Leno, Antiskid, ventilated etc.
- KU18.** Fabric finishing processes like Coating, Lamination, Printing
- KU19.** Bag conversion system

Generic Skills (GS)

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

- GS1.** write local or English language for recording production, quality related information, numbering, and maintenance of related information and materials, etc
- GS2.** read to differentiate the various materials used in the process
- GS3.** read and correctly interpret own notes written in local or English language
- GS4.** communicate with co-workers appropriately
- GS5.** listen carefully
- GS6.** talk effectively to convey information succinctly and unequivocally
- GS7.** adjust the fabric winding tension based on fabric roller diameter
- GS8.** plan and organize own work in a way that all activities are completed in time and as per specifications
- GS9.** interpret work requirements correctly
- GS10.** deliver quality output and maintain long term business relationship with customers
- GS11.** determine timely correction of errors to prevent redoing of work

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure proper running of the loom</i>	32	48	-	-
1. Do patrol of the allotted looms	4	6	-	-
2. Check the signal lamp and identify the reason for loom stoppage	4	6	-	-
3. Attend the loom for warp breakage	4	6	-	-
4. Ensure the weavers/Spiral knot size is small with minimum tail end	4	6	-	-
5. Draw the mended warp tape using J hook through Heald wire, Reed ring as per the drawing order	8	12	-	-
6. Ensure the mended warp tape is passing through Creel Guide, Drop wire/ Tension rod, Maxi drug roller, Comb, Compensator, Heald wire, Reed ring	4	6	-	-
7. Replace with new Creel bobbin of the same denier for exhaust	4	6	-	-
<i>Attend to breakages</i>	28	42	-	-
8. Attend the loom for weft breakage	4	6	-	-
9. Ensure the weft tape is passing through shuttle guide, magnetic disc	8	12	-	-
10. Replace with new weft bobbin of the same denier for weft exhaust	4	6	-	-
11. Ensure the bobbin is fixed firmly inside the shuttle assembly	4	6	-	-
12. Bring the insertion finger to the front centre to see that there is no gap between the round ceramic & the fell of the fabric	4	6	-	-
13. Run the loom by pressing inching	4	6	-	-
NOS Total	60	90	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N8402
NOS Name	Running Circular Loom Shuttle type
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Technical Textiles- Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

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TSC/N8403: Undertake warp threading in circular loom (Shuttle type)

Description

The unit deals with necessary skills, knowledge and attributes to carry out the threading process in Circular loom (Shuttle type) under supervision.

Scope

This unit/task covers the following:

- Ensure proper running of the loom
- Attend to breakages

Elements and Performance Criteria

Creeling and drawing of Tapes in Circular loom

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

1. Place the full bobbins in the creel stand
2. Place the colour bobbin in their respective peg for production of coloured fabric (Check/Stripe fabric)
3. Draw the tapes through their respective ceramic guides in creel stand and Drop wire/ Tension rod
4. Draw the tapes through the Intake comb through Maxidrag roller in creel zone
5. Draw the tapes through Water tray and sponge roller in creel zone
6. Draw the tapes through small comb via guide rollers creel zone
7. Draw the tapes through Eyelet bow and eyelet plate on loom
8. Draw the tapes through compensator
9. Draw the tapes through heald wire and reed ring based on type of weave like Plain, Leno, Antiskid, Ventilated, etc
10. Draw the tapes through the weave ring and tie up with the previously formed fabric at fabric spreader bracket
11. Run the loom by pressing inching
12. Ensure the formed fabric as per required specification

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Policies and procedures followed in the raffia sector relevant to own employment and performance conditions
- KU2.** Health, safety requirements, usage of personal protective equipment in the raffia industry
- KU3.** potential hazards associated with the machines and the safety precautions must be taken
- KU4.** protocol to obtain more information on work related tasks

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- KU5.** contact person in case of queries
- KU6.** documentation and reporting formats
- KU7.** method of obtaining /giving feedback with respect to performance
- KU8.** work targets & review machine with superiors
- KU9.** guidelines for storage & disposal of waste materials
- KU10.** Process flow in the raffia industry
- KU11.** Types of bobbin packages
- KU12.** Types of winding defects like slough off, soft package etc.
- KU13.** Passage of material through the circular loom.
- KU14.** Various types of weaves like Leno, Antiskid, ventilated etc
- KU15.** Drawing & Denting procedure for various types of weave

Generic Skills (GS)

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

- GS1.** write local or English language for recording production, quality related information, numbering, and maintenance of related information and materials, etc.
- GS2.** read to differentiate the various materials used in the process
- GS3.** read and correctly interpret own notes written in local or English language
- GS4.** communicate with co-workers appropriately
- GS5.** listen carefully
- GS6.** talk effectively to convey information succinctly and unequivocally
- GS7.** adjust the fabric winding tension based on fabric roller diameter
- GS8.** plan and organize own work in a way that all activities are completed in time and as per specifications
- GS9.** interpret work requirements correctly
- GS10.** deliver quality output and maintain long term business relationship with customers
- GS11.** determine timely correction of errors to prevent redoing of work

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Creeling and drawing of Tapes in Circular loom</i>	20	30	-	-
1. Place the full bobbins in the creel stand	2	3	-	-
2. Place the colour bobbin in their respective peg for production of coloured fabric (Check/Stripe fabric)	2	3	-	-
3. Draw the tapes through their respective ceramic guides in creel stand and Drop wire/ Tension rod	2	3	-	-
4. Draw the tapes through the Intake comb through Maxidrag roller in creel zone	1	2	-	-
5. Draw the tapes through Water tray and sponge roller in creel zone	2	3	-	-
6. Draw the tapes through small comb via guide rollers creel zone	2	3	-	-
7. Draw the tapes through Eyelet bow and eyelet plate on loom	2	3	-	-
8. Draw the tapes through compensator	2	3	-	-
9. Draw the tapes through heald wire and reed ring based on type of weave like Plain, Leno, Antiskid, Ventilated, etc	2	3	-	-
10. Draw the tapes through the weave ring and tie up with the previously formed fabric at fabric spreader bracket	1	1	-	-
11. Run the loom by pressing inching	1	1	-	-
12. Ensure the formed fabric as per required specification	1	2	-	-
NOS Total	20	30	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N8403
NOS Name	Undertake warp threading in circular loom (Shuttle type)
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Technical Textiles- Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

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TSC/N8404: Contribute quality weaving in Circular loom (Shuttle type)

Description

The unit deals with necessary skills, knowledge and attributes to contribute quality weaving in Circular loom (Shuttle type) under supervision.

Scope

This unit/task covers the following:

- Ensure the quality production
- Carry out corrective measures

Elements and Performance Criteria

Ensure quality production

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

1. Ensure the running warp tape tension is in required level, adjust if required with the help of fitter
2. Ensure the fabric tension at fabric winding zone is in required level, adjust if required with the help of fitter
3. Ensure the proper working of take up proximity sensor, Magnetic sensor and Colour sensor

Carryout corrective measures

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

4. Clean the colour sensor at regular intervals for better working
5. Correct the fabric defects immediately like wrong drawing, wrong denting , end out, double end etc.
6. Collect all the tape waste with the waste bag provided
7. Ensure that all the stop motions, preventive mechanisms etc., function properly to avoid fabric defects
8. Double ends have to be removed should report to superiors for any deviation in the same & for any other quality issue
9. Ensure the allotted looms are stopped for a minimum possible down time
10. Check the fabrics for the defects at constant interval
11. Check for the reasons for the frequent warp/ weft breaks and same has to be reported to the mechanics/ fitters/ superiors
12. Report to the supervisor for defective bobbin package
13. Report to the supervisor for fabric damage

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** Policies and procedures followed in the raffia sector relevant to own employment and performance conditions
- KU2.** Health, safety requirements, usage of personal protective equipment in the raffia industry
- KU3.** potential hazards associated with the machines and the safety precautions must be taken
- KU4.** protocol to obtain more information on work related tasks
- KU5.** contact person in case of queries
- KU6.** documentation and reporting formats
- KU7.** method of obtaining /giving feed back with respect to performance
- KU8.** work targets & review machine with superiors
- KU9.** guidelines for storage & disposal of waste materials
- KU10.** Process flow in the raffia industry
- KU11.** Types of fabric defects like holes, stains, end out, double end etc.
- KU12.** Different types of Polymers, Fillers, Additives etc.
- KU13.** Filament parameters like denier, Elongation, strength etc.
- KU14.** Various types sack fabric testing methods
- KU15.** Fabric testing equipments like Universal Tensile tester, Melt Flow Index tester, Ash content apparatus, UV tester, wrap reel etc

Generic Skills (GS)

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

- GS1.** write local or English language for recording production, quality related information, numbering, and maintenance of related information and materials, etc.
- GS2.** read to differentiate the various materials used in the process
- GS3.** read and correctly interpret own notes written in local or English language
- GS4.** communicate with co-workers appropriately
- GS5.** listen carefully
- GS6.** talk effectively to convey information succinctly and unequivocally
- GS7.** adjust the fabric winding tension based on fabric roller diameter
- GS8.** plan and organize own work in a way that all activities are completed in time and as per specifications
- GS9.** interpret work requirements correctly
- GS10.** deliver quality output and maintain long term business relationship with customers
- GS11.** determine timely correction of errors to prevent redoing of work

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure quality production</i>	6	9	-	-
1. Ensure the running warp tape tension is in required level, adjust if required with the help of fitter	2	3	-	-
2. Ensure the fabric tension at fabric winding zone is in required level, adjust if required with the help of fitter	2	3	-	-
3. Ensure the proper working of take up proximity sensor, Magnetic sensor and Colour sensor	2	3	-	-
<i>Carryout corrective measures</i>	34	51	-	-
4. Clean the colour sensor at regular intervals for better working	2	3	-	-
5. Correct the fabric defects immediately like wrong drawing, wrong denting , end out, double end etc.	4	6	-	-
6. Collect all the tape waste with the waste bag provided	2	3	-	-
7. Ensure that all the stop motions, preventive mechanisms etc., function properly to avoid fabric defects	4	6	-	-
8. Double ends have to be removed should report to superiors for any deviation in the same & for any other quality issue	4	6	-	-
9. Ensure the allotted looms are stopped for a minimum possible down time	4	6	-	-
10. Check the fabrics for the defects at constant interval	2	3	-	-
11. Check for the reasons for the frequent warp/ weft breaks and same has to be reported to the mechanics/ fitters/ superiors	4	6	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
12. Report to the supervisor for defective bobbin package	4	6	-	-
13. Report to the supervisor for fabric damage	4	6	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N8404
NOS Name	Contribute quality weaving in Circular loom (Shuttle type)
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Technical Textiles- Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

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TSC/N9011: Maintain work area, tools and machines in raffia sector

Description

This unit provides performance criteria, knowledge & understanding and skills & abilities required to organize/ maintain work areas and activities to ensure tools and machines are maintained as per norms in raffia sector

Scope

This unit/task covers the following:

- Maintain the work area, tools and machines

Elements and Performance Criteria

Maintain the work area, tools and machines

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

1. handle Polymer materials, machinery, equipment and tools with care and use them in proper way
2. use correct lifting and handling procedures of Polymer bags, Tape bobbins etc.
3. use materials to minimize waste of Polymer Granules, Tapes bobbins etc
4. maintain a clean and hazard free working area inside the Tape plant and circular loom department
5. ensure the maintenance are carried out within agreed schedules for Tape plant/ Circular looms
6. carry out maintenance and/or cleaning within ones responsibility
7. report unsafe conditions like Pressure deviation, Temperature deviation and other dangerous occurrences to the fitter
8. ensure that the correct machine guards are in their place
9. work in a comfortable position with the correct posture while handling Godet rollers, weaving ring etc.
10. use cleaning equipment like brush, air compressor to clean the winding area, loom creels etc
11. clean the quenching tank as per prescribed interval
12. dispose of tape waste in the designated location/ bins
13. store cleaning equipment at allotted place and close the air compressor valve safely after use
14. carry out cleaning of machines according to schedules and limits of responsibility
15. handle Polymer materials, machinery, equipment and tools with care and use them in proper way

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal hygiene and duty of care

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- KU2.** safe working practices and organizational standard operating procedures
- KU3.** limits of your own responsibility
- KU4.** ways of resolving problems within the work area
- KU5.** the production process and the specific work activities that relate to the whole process
- KU6.** the importance of effective communication with supervisors
- KU7.** the lines of communication, authority and reporting procedures
- KU8.** the organizations rules, codes and guidelines (including timekeeping)
- KU9.** the companys quality standards
- KU10.** the importance of complying with written instructions
- KU11.** equipment operating procedures / supervisors instructions
- KU12.** work instructions and specifications and interpret them accurately
- KU13.** relation between work role and the overall manufacturing process
- KU14.** hazards likely to be encountered when conducting routine maintenance
- KU15.** the importance of taking action when problems are identified
- KU16.** different ways of minimizing waste
- KU17.** the importance of running maintenance and regular cleaning
- KU18.** Safe value ranges of Processing parameters such as temperature, pressure, speed, etc
- KU19.** common faults with equipment and the method to rectify
- KU20.** maintenance procedures
- KU21.** different types of cleaning equipment and substances and their use
- KU22.** safe working practices for cleaning and the method of carrying them out

Generic Skills (GS)

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

- GS1.** Write clear and short sentences
- GS2.** comprehend written instructions
- GS3.** read any application sent by other colleagues
- GS4.** communicate effectively in simple language
- GS5.** communicate with supervisor appropriately
- GS6.** talk to others to convey information effectively
- GS7.** identify the real reason of problem faced
- GS8.** apply problem-solving approaches in different situations
- GS9.** refer anomalies to the supervisor
- GS10.** seek clarification on problems from others
- GS11.** apply good attention to detail
- GS12.** check your work is complete and free from errors
- GS13.** make sure every kind of communication is error free
- GS14.** communicate effectively
- GS15.** apply leadership skills wherever required



GS16. take initiative at the right place

GS17. understand the requirement to be creative

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain the work area, tools and machines</i>	40	60	-	-
1. handle Polymer materials, machinery, equipment and tools with care and use them in proper way	4	6	-	-
2. use correct lifting and handling procedures of Polymer bags, Tape bobbins etc.	4	6	-	-
3. use materials to minimize waste of Polymer Granules, Tapes bobbins etc	4	6	-	-
4. maintain a clean and hazard free working area inside the Tape plant and circular loom department	4	6	-	-
5. ensure the maintenance are carried out within agreed schedules for Tape plant/ Circular looms	4	6	-	-
6. carry out maintenance and/or cleaning within ones responsibility	4	6	-	-
7. report unsafe conditions like Pressure deviation, Temperature deviation and other dangerous occurrences to the fitter	2	3	-	-
8. ensure that the correct machine guards are in their place	2	3	-	-
9. work in a comfortable position with the correct posture while handling Godet rollers, weaving ring etc.	2	3	-	-
10. use cleaning equipment like brush, air compressor to clean the winding area, loom creels etc	2	3	-	-
11. clean the quenching tank as per prescribed interval	2	3	-	-
12. dispose of tape waste in the designated location/ bins	2	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
13. store cleaning equipment at allotted place and close the air compressor valve safely after use	2	3	-	-
14. carry out cleaning of machines according to schedules and limits of responsibility	1	1	-	-
15. handle Polymer materials, machinery, equipment and tools with care and use them in proper way	1	2	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9011
NOS Name	Maintain work area, tools and machines in raffia sector
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Textile Mill sector - Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

Qualification Pack

TSC/N9012: Working in a team in raffia sector

Description

This unit is about working as a team member in the raffia industry

Scope

This unit/task covers the following:

- commitment and trust
- communication
- adaptability
- creative freedom

Elements and Performance Criteria

Commitment and trust

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

1. be accountable to the own role in whole process of Extruding/ Winding/ Weaving etc
2. perform your duty with full responsibility inside the tape plant/ circular loom department
3. be effective and efficient to avoid the tape waste, Fabric waste etc

Communication

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

4. properly communicate about company policies with colleagues
5. report all problems faced during the process with respective fitter, Spinning plant / Circular loom
6. submit process log report of tape plant in your shift without fail
7. submit daily report of own performance

Adaptability

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

8. adjust in different work situations
9. give due importance to others point of view
10. avoid conflicting situations

Creative freedom

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

11. develop new ideas for work procedures
12. improve upon the existing techniques to increase process efficiency

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard Operating Procedures (SOP) and regulations in a woven sack

Qualification Pack

- KU2.** procedure followed to get the final output suitable for market sale
- KU3.** safe working practices to be adopted in textile mill
- KU4.** reporting to the supervisor or higher authority about any grievances faced
- KU5.** the importance of the previous and next step of the process
- KU6.** process flow in a textile mill and the concerned workers
- KU7.** material flow in a textile mill and the required person
- KU8.** functions of different parts of the machine
- KU9.** tools and equipments used
- KU10.** guidelines for operating the machine
- KU11.** safety procedures to be followed in the machine

Generic Skills (GS)

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

- GS1.** write clear and short sentences
- GS2.** write daily work report
- GS3.** write grievance complaint application
- GS4.** comprehend written instructions
- GS5.** read any application sent by other colleagues
- GS6.** communicate with supervisor appropriately
- GS7.** talk to co-workers to convey information effectively
- GS8.** identify the real reason of problem faced
- GS9.** be able to find the most effective solution to the problems faced
- GS10.** apply good attention to detail
- GS11.** ensure every kind of communication is error free
- GS12.** communicate effectively
- GS13.** apply leadership skills wherever required
- GS14.** take initiative at the right place
- GS15.** understand the requirement to be creative

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Commitment and trust</i>	4	7	-	-
1. be accountable to the own role in whole process of Extruding/ Winding/ Weaving etc	2	3	-	-
2. perform your duty with full responsibility inside the tape plant/ circular loom department	1	2	-	-
3. be effective and efficient to avoid the tape waste, Fabric waste etc	1	2	-	-
<i>Communication</i>	7	11	-	-
4. properly communicate about company policies with colleagues	1	2	-	-
5. report all problems faced during the process with respective fitter, Spinning plant / Circular loom	2	3	-	-
6. submit process log report of tape plant in your shift without fail	2	3	-	-
7. submit daily report of own performance	2	3	-	-
<i>Adaptability</i>	5	8	-	-
8. adjust in different work situations	2	3	-	-
9. give due importance to others point of view	2	3	-	-
10. avoid conflicting situations	1	2	-	-
<i>Creative freedom</i>	3	5	-	-
11. develop new ideas for work procedures	2	3	-	-
12. improve upon the existing techniques to increase process efficiency	1	2	-	-
NOS Total	19	31	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9012
NOS Name	Working in a team in raffia sector
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Textile Mill sector - Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	09/07/2017
Next Review Date	09/08/2020
NSQC Clearance Date	

Qualification Pack

TSC/N9013: Maintain health, safety and security at work place in raffia sector

Description

This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others.

Scope

comply with health, safety and security requirements at work

- recognizing the hazards
- planning the safety techniques
- implementing the programs

Elements and Performance Criteria

Comply with health, Safety and security requirements at work

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

1. comply with health and safety related instructions applicable for the raffia sector
2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol
3. carry out the activities in extrusion line/ loom with approved guidelines and procedures
4. follow safety methods while handling Heating zones, Melt pump, Breaker plate etc
5. do not exceed the line speed/ Loom speed unsafe for existing condition
6. identify and correct the malfunctions in winders, within limits of responsibility
7. store raw materials and equipment in line with organisational requirements
8. report any service malfunctions that cannot be rectified
9. store materials and equipment in line with organisational requirements
10. safely handle the molten polymer, tapes as per approved protocols
11. minimize health and safety risks to self and others due to own actions
12. seek clarifications, from supervisors or other authorized personnel in case of perceived risks while handling with extruder/ winder/ loom
13. monitor the workplace and work processes for potential risks and threat
14. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
15. report hazards and potential risks/ threats to supervisors or other authorized personnel inside the Extrusion/ Loom department
16. participate in mock drills/ evacuation procedures organized at the workplace
17. undertake first aid, fire-fighting and emergency response training, if asked to do so
18. take action based on instructions in the event of fire, emergencies or accidents

Qualification Pack

19. follow organisation procedures for shutdown of Tape plant/ loom and evacuation when required

Recognizing the hazards

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

20. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry

21. recognise other possible security issues existing in the workplace

Planning the safety techniques

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

22. recognise different measures to curb the hazards

Implementing the programs

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

23. communicate the safety plan to colleagues/ trainee workers in the plant department

24. attach disciplinary rules with the implementation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Standard Operating Procedures (SOP) and regulations in a woven sack

KU2. safe working practices to be adopted in woven sack industry

KU3. quality systems and other processes practiced in the woven sack industry

KU4. health and safety related practices applicable at the workplace

KU5. potential hazards, risks and threats based on nature of operations

KU6. organizational procedures for safe handling of equipment and machine operations

KU7. potential risks due to own actions and methods to minimize these

KU8. environmental management system related procedures at the workplace

KU9. layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points

KU10. potential accidents and emergencies and response to these scenarios

KU11. reporting protocol and documentation required

KU12. details of personnel trained in first aid, fire-fighting and emergency response

KU13. actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire

KU14. occupational health and safety risks and methods

KU15. personal protective equipment and method of use

KU16. identification, handling and storage of hazardous substances

KU17. proper disposal system for Tape waste and polymer waste

KU18. signage related to health and safety and their meaning

KU19. importance of sound health, hygiene and good habits

KU20. ill-effects of alcohol, tobacco and drugs

Generic Skills (GS)

Qualification Pack

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

- GS1.** write clear and short sentences
- GS2.** read and understand the company instructions
- GS3.** read and understand work instructions
- GS4.** read and understand the safety guidelines
- GS5.** listen to others attentively
- GS6.** respond to emergencies, accidents or fire at the workplace
- GS7.** evacuate the premises and help others in need while doing so
- GS8.** the value of physical fitness, personal hygiene and good habits
- GS9.** talk with others politely
- GS10.** identify correct safety measure for particular hazard
- GS11.** make required safety plans as and when required
- GS12.** raise alarm in case of emergency
- GS13.** know the use of correct safety measure whenever required
- GS14.** be attentive to details
- GS15.** be careful to avoid occurrence of hazards
- GS16.** maintenance of neatness at work
- GS17.** procedure for reporting unwanted behavior

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Comply with health, Safety and security requirements at work</i>	36	54	-	-
1. comply with health and safety related instructions applicable for the raffia sector	2	3	-	-
2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol	2	3	-	-
3. carry out the activities in extrusion line/ loom with approved guidelines and procedures	2	3	-	-
4. follow safety methods while handling Heating zones, Melt pump, Breaker plate etc	2	3	-	-
5. do not exceed the line speed/ Loom speed unsafe for existing condition	2	3	-	-
6. identify and correct the malfunctions in winders, within limits of responsibility	2	3	-	-
7. store raw materials and equipment in line with organisational requirements	2	3	-	-
8. report any service malfunctions that cannot be rectified	2	3	-	-
9. store materials and equipment in line with organisational requirements	2	3	-	-
10. safely handle the molten polymer, tapes as per approved protocols	2	3	-	-
11. minimize health and safety risks to self and others due to own actions	2	3	-	-
12. seek clarifications, from supervisors or other authorized personnel in case of perceived risks while handling with extruder/ winder/ loom	2	3	-	-
13. monitor the workplace and work processes for potential risks and threat	2	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
14. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	2	3	-	-
15. report hazards and potential risks/ threats to supervisors or other authorized personnel inside the Extrusion/ Loom department	2	3	-	-
16. participate in mock drills/ evacuation procedures organized at the workplace	2	3	-	-
17. undertake first aid, fire-fighting and emergency response training, if asked to do so	2	3	-	-
18. take action based on instructions in the event of fire, emergencies or accidents	1	2	-	-
19. follow organisation procedures for shutdown of Tape plant/ loom and evacuation when required	1	1	-	-
<i>Recognizing the hazards</i>	2	2	-	-
20. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	1	1	-	-
21. recognise other possible security issues existing in the workplace	1	1	-	-
<i>Planning the safety techniques</i>	1	1	-	-
22. recognise different measures to curb the hazards	1	1	-	-
<i>Implementing the programs</i>	2	2	-	-
23. communicate the safety plan to colleagues/ trainee workers in the plant department	1	1	-	-
24. attach disciplinary rules with the implementation	1	1	-	-
NOS Total	41	59	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9013
NOS Name	Maintain health, safety and security at work place in raffia sector
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Textile Mill sector - Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	07/09/2017
Next Review Date	08/09/2020
NSQC Clearance Date	

Qualification Pack

TSC/N9014: Comply with industry and organizational requirements in raffia sector

Description

This unit is about knowing, understanding, and complying with the requirements of the organization and the raffia industry

Scope

self-development

- team work
- organizational standards
- industry standards

Elements and Performance Criteria

Self development

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

1. perform own duties effectively in the raffia sector
2. take responsibility for own actions
3. be accountable towards the job role and assigned duties
4. take initiative to minimize the tape waste
5. focus on self-learning and improvement within the various positions in raffia sector

Team work

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

6. co-ordinate with all the team members and colleagues for effective information sharing
7. communicate politely with co workers
8. avoid conflicts and miscommunication

Organizational standards

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

9. know the organisational standards
10. implement them in your performance
11. motivate others to follow them

Industry standards

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

12. know the industry standards
13. align them with organisation standards

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

Qualification Pack

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2.** reporting to the supervisor or higher authority
- KU3.** knowledge of organizational standards
- KU4.** knowledge of industry standards
- KU5.** process and material flow in raffia sector
- KU6.** importance of complying with the standards
- KU7.** guidelines for cleaning the various parts of extruder, circular loom etc.

Generic Skills (GS)

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

- GS1.** write clear and short sentences
- GS2.** read the given instructions
- GS3.** comprehend written instructions
- GS4.** talk effectively with others
- GS5.** put forward your point
- GS6.** listen to others
- GS7.** Organizational requirements
- GS8.** your responsibilities at the workplace
- GS9.** procedure to comply with the industry standards

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Self development</i>	9	15	-	-
1. perform own duties effectively in the raffia sector	2	3	-	-
2. take responsibility for own actions	2	3	-	-
3. be accountable towards the job role and assigned duties	2	3	-	-
4. take initiative to minimize the tape waste	2	3	-	-
5. focus on self-learning and improvement within the various positions in raffia sector	1	3	-	-
<i>Team work</i>	6	6	-	-
6. co-ordinate with all the team members and colleagues for effective information sharing	2	2	-	-
7. communicate politely with co workers	2	2	-	-
8. avoid conflicts and miscommunication	2	2	-	-
<i>Organizational standards</i>	5	5	-	-
9. know the organisational standards	2	2	-	-
10. implement them in your performance	2	2	-	-
11. motivate others to follow them	1	1	-	-
<i>Industry standards</i>	2	2	-	-
12. know the industry standards	1	1	-	-
13. align them with organisation standards	1	1	-	-
NOS Total	22	28	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9014
NOS Name	Comply with industry and organizational requirements in raffia sector
Sector	Textile
Sub-Sector	Technical Textiles
Occupation	Textile Mill sector - Raffia
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	07/09/2017
Next Review Date	08/09/2020
NSQC Clearance Date	

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ 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 Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

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
TSC/N8401.Taking charge of shift and handing over shift to Circular loom operator (Shuttle type)	40	60	-	-	100	16
TSC/N8402.Running Circular Loom Shuttle type	60	90	-	-	150	21

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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N8403.Undertake warp threading in circular loom (Shuttle type)	20	30	-	-	50	7
TSC/N8404.Contribute quality weaving in Circular loom (Shuttle type)	40	60	-	-	100	14
TSC/N9011.Maintain work area, tools and machines in raffia sector	40	60	-	-	100	14
TSC/N9012.Working in a team in raffia sector	19	31	-	-	50	7
TSC/N9013.Maintain health, safety and security at work place in raffia sector	41	59	-	-	100	14
TSC/N9014.Comply with industry and organizational requirements in raffia sector	22	28	-	-	50	7
Total	282	418	-	-	700	100

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.

Qualification Pack

Knowledge and Understanding (KU)	<p>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.</p>
Organisational Context	<p>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.</p>
Technical Knowledge	<p>Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.</p>
Core Skills/ Generic Skills (GS)	<p>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.</p>
Electives	<p>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.</p>
Options	<p>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.</p>