

# Model Curriculum

## Wax Piece Maker

**SECTOR: GEMS & JEWELLERY**  
**SUB-SECTOR: CAST AND DIAMONDS-SET JEWELLERY**  
**OCCUPATION: WAX MODEL MAKING**  
**REF ID: G&J/Q2602, V1.0**  
**NSQF LEVEL: 4**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**GEM & JEWELLERY SECTOR SKILL COUNCIL OF INDIA**

for the


### MODEL CURRICULUM

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: **'Wax Piece Maker'** QP No. **'G&J/Q2602 NSQF Level 4'**

Date of Issuance: **October 15<sup>th</sup>, 2016**

Valid up to: **October 14<sup>th</sup>, 2018**

\* Valid up to the next review date of the Qualification Pack

  
Mr. Premkumar Kothari  
Chairman  
(Gem & Jewellery Skill Council of India)

# Wax Piece Maker

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Wax Piece Maker”, in the “Gems & Jewellery” Sector and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Wax Piece Maker</b>		
<b>Qualification Pack Name &amp; Reference ID</b>	G&J/Q2602, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	N.A
<b>Pre-requisites to Training</b>	10th standard passed, preferably		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Make the wax pieces:</b> Produce wax replica of jewellery piece by injection moulding process, in order to use it for mass production of jewellery piece through casting process</li> <li>• <b>Respect and maintain IPR:</b> Respecting Intellectual Property Rights of the company’s products and designs.</li> <li>• <b>Coordinate with others:</b> Identify team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the required deliverables on schedule.</li> <li>• <b>Maintain occupational health and safety:</b> Make commitment towards reporting potential hazards, taking preventive measures to contain accidents in order to make the work environment safe for self and colleagues and maintaining a clean working environment.</li> </ul>		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Wax Piece Maker” Qualification Pack issued by “Gem & Jewellery Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Make the Wax Pieces</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 120:00</p> <p><b>Corresponding NOS Code</b> G&amp;J/N2602</p>	<ul style="list-style-type: none"> <li>To fill the wax in injection moulding machine as per batch size and specifications of the machine</li> <li>To select appropriate wax type for making wax pieces</li> <li>To follow operating procedure of the wax injection moulding machine</li> <li>To ensure damage free output with minimal hazards</li> <li>To inspect all rubber mould for imperfect cutting, air lining, bottom lining and sprue linings</li> <li>To remove wax piece without damaging wax pieces and rubber mould</li> <li>To check for rubber mould quality and zero defects at the wax pulling stage</li> <li>To identify different types of wax and their properties, particularly, with respect to heat and pressure sensitivity</li> <li>To identify uses of different qualities of wax and its properties in terms of shrinkage</li> <li>To identify potential work hazards, particularly, when using injection moulding machine, hot plates and sharp tools</li> </ul>	<p><b>Mandatory</b> – Wax Injector; Blade Handle; Inspection Table Lamp; Needles; Soldering Iron; Silicon Spray; Talcum Powder; Ring Sizer; Wax Pen; Wax Iron; Wax Block; Touch Up Wax; Injection Wax; Cleaning Solvent; Wax Pen with Wire and Loop Tips; Compressor; Aluminum Plate; Silicon / Design Rubber Mould; Pen; Pencil; Eraser; Note Pad</p>
2	<p><b>Respect and maintain IPR</b></p> <p><b>Theory Duration</b> (hh:mm) 01:00</p> <p><b>Practical Duration</b> (hh:mm) 02:00</p> <p><b>Corresponding NOS Code</b> G&amp;J/N9901</p>	<ul style="list-style-type: none"> <li>To prevent leak of new designs/ plans to competitors by reporting on time</li> <li>To be aware of any of company's product, process or design patents</li> <li>To report IPR violations observed in the market, to supervisor or company heads</li> <li>To know the basics of IPR and patent laws</li> </ul>	<p>Computer or laptop attached to LCD projector; whiteboard; whiteboard markers; Pen; Pencil; Eraser; Note Pad</p>
3	<p><b>Coordinate with Others</b></p> <p><b>Theory Duration</b> (hh:mm) 02:00</p> <p><b>Practical Duration</b></p>	<ul style="list-style-type: none"> <li>Learn how to coordinate with supervisor, colleagues and others</li> <li>Learn the importance of interaction and coordination for personal growth</li> </ul>	<p>Computer or laptop attached to LCD projector; whiteboard; whiteboard markers; Pen; Pencil; Eraser; Note Pad</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 02:00  <b>Corresponding NOS Code</b> G&J/N9902		
4	<b>Maintain occupational health and safety</b>  <b>Theory Duration</b> (hh:mm) 01:00  <b>Practical Duration</b> (hh:mm) 02:00  <b>Corresponding NOS Code</b> G&J/N9905	<ul style="list-style-type: none"> <li>• Learn about safety procedures</li> <li>• Learn about potential hazards in workplace</li> <li>• Learn what to do in an emergency situation</li> <li>• Learn to use the fire extinguisher by identifying the appropriate fire</li> <li>• Learn how to comply with company safety rules and regulations</li> </ul>	First aid kit; fire extinguisher; emergency plan outline; Pen; Pencil; Eraser; Note Pad
	<b>Total Duration</b> 150:00  <b>Theory Duration</b> 24:00  <b>Practical Duration</b> 126:00	<b>Unique Equipment Required:</b> Wax Injector; Blade Handle; Inspection Table Lamp; Needles; Soldering Iron; Silicon Spray; Talcum Powder; Ring Sizer; Wax Pen; Wax Iron; Wax Block; Touch Up Wax; Injection Wax; Cleaning Solvent; Wax Pen with Wire and Loop Tips; Compressor; Aluminum Plate; Silicon / Design Rubber Mould, First aid kit; fire extinguisher; emergency plan outline; Pen; Pencil; Eraser; Note Pad	

Grand Total Course Duration: **150 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Gem and Jewellery Skill Council of India](#))

**Trainer Prerequisites for Job role: “Wax Piece Maker” mapped to Qualification Pack: “G&J/Q2602, v1.0.”**

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “G&J/Q2602”, Version 1.0.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	Graduate, preferably
4a	<b>Domain Certification</b>	Certified for Job Role: <u>Wax Piece Maker</u> mapped to QP: “G&J/Q2602, v1.0”. Minimum accepted score as per SSC guidelines is 80% on the SSC prescribed online theory assessment test based on an industry validated question bank.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/1402”. Minimum accepted score for the trainer is 80% as per SSC guidelines.
5	<b>Experience</b>	Minimum 3 years of experience in Wax Piece Making

### Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	<b>Wax Piece Maker</b>
<b>Qualification Pack</b>	<b>G&amp;J/Q2602, v1.0</b>
<b>Sector Skill Council</b>	<b>Gem &amp; Jewellery Skill Council of India</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3	Individual assessment agencies will create theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4	Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5	To pass the Qualification Pack, every candidate should score a minimum 70% of aggregate marks to successfully clear the assessment.
6	In case of successfully passing only certain number of NOSs, the candidate is eligible to take subsequent assessment on the balance NOSs to pass the Qualification Pack.

Assessment outcomes	Assessment Criteria for outcomes	Marks Allocation			
		Total Marks (80+20)	Out Of	Theory	Skills Practical
<b>1. G&amp;J/N2602 Make the wax pieces</b>	PC1. Feed the wax in injection moulding machine as per batch size and specifications of the machine	<b>75</b>	11	1	10
	PC2. Select appropriate wax type for making wax pieces		13	3	10
	PC3. Follow operating procedure of the wax injection moulding machine		8	3	5
	PC4. Timely deliver wax pieces to next process		5	0	5
	PC5. Produce number of wax pieces per day as per target given		5	0	5
	PC6. Ensure damage free output with minimal hazards		5	0	5
	PC7. Inspect all rubber mould for imperfect cutting, air lining, bottom lining and sprue linings		11	1	10
	PC8. Remove wax piece without damaging wax pieces and rubber mould		12	2	10
	PC9. Rubber mould quality okayed and zero defects at the wax pulling stage		5	0	5
			<b>Total</b>	<b>75</b>	<b>10</b>
<b>2. G&amp;J/N9901 Respect and maintain IPR</b>	PC1. Be able to spot plagiarism and report	<b>9</b>	3	2	1
	PC2. Be aware of patents and IPR		4	1	3
	PC3. Not be involved in IPR violations		2	1	1
			<b>Total</b>	<b>9</b>	<b>4</b>
<b>3. G&amp;J/N9902 Coordinate with others</b>	PC1. Understand the work output requirements	<b>8</b>	2	1	1
	PC2. Comply with company policy and rule		1	0	1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. Put team over individual goals		1	1	0
	PC5. Be able to resolve conflicts		1	0	1
	PC6. Learn how to multi-task relevant activities		2	1	1
			<b>Total</b>	<b>8</b>	<b>3</b>
<b>4. G&amp;J/N9905 Maintain occupational</b>	PC1. Spot and report potential hazards on time	<b>8</b>	2	1	1
	PC2. Follow company policy and rules regarding use of hazardous materials		2	0	2



<b>health and safety</b>	PC3. Attend and actively participate in the health and safety campaigns organised by the company		2	1	1
	PC4. Use or wear safety gear as per the rules of the company		2	1	1
	<b>Sub Total</b>		<b>8</b>	<b>3</b>	<b>5</b>
	<b>Grand Total</b>		<b>100</b>	<b>100</b>	<b>20</b>
	<b>Percentage Weightage:</b>			<b>20%</b>	<b>80%</b>
	<b><u>Minimum Pass % to qualify (aggregate):</u></b>			<b>70%</b>	