

# OCCUPATIONAL QUALIFICATION STANDARD

## Plastics Machine and Tool Setter, EstQF Level 4

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Plastics Machine and Tool Setter, EstQF Level 4	4

### Part A DESCRIPTION OF WORK

<b>A.1 Description of work</b> <p>The aim of the work of Plastics Machine and Tool Setter, EstQF Level 4 is to ensure the effective production of high-quality plastic components and products.</p> <p>Work consists of operating and supervising plastics-processing industrial tools and machines (including robots), product exchanges, preparing accessories, checking products' compliance with standards and solving non-compliances.</p> <p>Depending on the production processes of the enterprise, the plastics machine and tool setter will work with injection moulding, extrusion and blow moulding, rotation moulding and thermal moulding devices.</p> <p>The plastics machine and tool setter works independently or in a team, meeting safety requirements while fulfilling job tasks that vary little.</p> <p>Depending on the organisation of work in the enterprise, they may also work as an operator.</p> <p>Similar professions:          Mechatronic, EstQF Level 4          Robot Operator, EstQF Level 4</p>
<b>A.2 Tasks</b> <p>A.2.1 Product exchanges</p> <ol style="list-style-type: none"> <li>1. Preparing materials</li> <li>2. Installing tools</li> <li>3. Connecting devices</li> <li>4. Loading process (including robotics) programmes</li> <li>5. Launching production processes and carrying out quality inspections</li> <li>6. Documentation</li> </ol> <p>A.2.2 Operating plastic-processing industrial tools and machines (including robots)</p> <ol style="list-style-type: none"> <li>1. Switching on devices</li> <li>2. Identifying and eliminating malfunctions</li> <li>3. Suspending the process</li> </ol> <p>A.2.3 Maintenance of devices and tools</p> <ol style="list-style-type: none"> <li>1. Regular (preventative) maintenance of devices</li> <li>2. Cleaning and maintenance of tools</li> </ol> <p>A.2.4 Inspecting products</p> <ol style="list-style-type: none"> <li>1. Evaluating product compliance with standards</li> <li>2. Identifying and eliminating deviations</li> </ol>

<b>A.3 Work environment and specific nature of work</b>
Due to the constant nature of the work processes, work may take place in shifts and require physical exertion. Work is varying. You may encounter loud noise and high temperatures in the work environment. You may come into contact with plastic-processing materials that may trigger an allergic reaction.
<b>A.4 Tools</b>
Electrical, hydraulic, pneumatic and mechanical machinery (including robots) and devices, handheld tools, measurement tools, cleaning preparations and lubricants.
<b>A.5 Personal qualities required for work: abilities and characteristics</b>
The work requires precision and the ability to take responsibility, learn and adapt. Technical intelligence, ability to focus and manual dexterity are important skills for the job.
<b>A.6 Professional preparation</b>
A plastics machine and tool setter can learn their occupation on the job, on training courses or at vocational training institutions.
<b>A.7 Most common occupational titles</b>
Plastic manufacturing machine operator, combination machine tool setter, machine set-up operator.
<b>A.8 Regulations governing profession</b>
Certification of the right to drive lifting equipment is required when working with lifting equipment that requires an audit. Basis: Equipment Safety Act Relevant training and certification are required when working with lifting and loading equipment. Basis: Government regulation Occupational health and safety requirements for using equipment'. In order to work with an open flame, a certificate of completion of a relevant training course is required. Basis: Fire Safety Act

## Part B COMPETENCY REQUIREMENTS

<b>B.1 Structure of occupation</b>
Mandatory competences B.2.1-B.2.4 and recurring competence B.2.5 must be certified during the application process.

<b>B.2 Competences</b>
------------------------

### MANDATORY COMPETENCES

<b>B.2.1 Product exchanges</b>	<b>EstQF Level 4</b>
Performance indicators: 1. prepares materials according to the task and manuals; 2. transfers and installs prepared tools (e.g. moulds) on the production machine according to the task and manual, using lifting and loading equipment; 3. creates the necessary hydraulic, pneumatic and electrical connections between tools and production machinery and sensor and data connections according to the manual; 4. loads the process programme into the production equipment (including robots) according to the task and manual; 5. launches the production process and checks the product's quality compliance with the requirements established in the manuals; 6. documents product exchanges according to the procedure established in the enterprise.	
Knowledge: 1) types, properties and uses of polymeric materials; 2) overview of plastic material processing technologies: injection moulding, extrusion and blow moulding, rotation moulding and thermal moulding;	

3) terminology, units of measurement and symbols in instruction materials and on configuration cards.	
<b>B.2.2 Operating plastic-processing industrial tools and machines (including robots)</b>	<b>EstQF Level 4</b>
Performance indicators: 1. launches the production process by switching on the main tools and accessories according to the task and manual; 2. identifies the reason for an interruption to a process based on an error message or visual evidence; 3. identifies the reason for a deviation from a process by checking parameter compliance with the manual; 4. brings parameters into line with the requirements in the manual or informs the necessary personnel of faulty equipment according to the work arrangements; 5. suspends the process according to the manual if high-quality production is not possible or due to work arrangements.	
Knowledge: 1) types, properties and uses of polymeric materials; 2) overview of plastic material processing technologies: injection moulding, extrusion and blow moulding, rotation moulding and thermal moulding; 3) plastic product quality inspection methods.	
<b>B.2.3 Maintenance of devices and tools</b>	<b>EstQF Level 4</b>
Performance indicators: 1. maintains and cleans devices according to the given maintenance manuals and carries out preventative maintenance; 2. maintains tools, moulds and accessories according to requirements and using the appropriate tools and methods.	
Knowledge: 1) cleaning materials and resources for devices and tools; 2) requirements of working with an open flame; 3) terminology, units of measurement and symbols in maintenance manuals.	
<b>B.2.4 Inspecting products</b>	<b>EstQF Level 4</b>
Performance indicators: 1) measures product parameters and checks compliance with manuals, using appropriate measurement tools; 2) visually evaluates product compliance with quality standards; 3) identifies the reasons for a product's non-compliance; 4) if a product's deviance from standards cannot be eliminated, informs the responsible personnel in the enterprise and acts in accordance with the given instructions; 5) informs the responsible personnel of faulty equipment and acts in accordance with the given instructions.	
Knowledge: 1) plastic product quality inspection methods.	

## RECURRING COMPETENCES

<b>B.2.5 Recurring competences of Plastics Machine and Tool Setter, EstQF Level 4</b>	<b>EstQF Level 4</b>
Performance indicators: 1. acts responsibly and purposefully in accordance with occupational health and safety and environmental requirements; 2. prepares and maintains a safe and ergonomic work space; 3. uses resources for their intended purpose and efficiently; 4. understands their role in the production chain; 5. evaluates possible risks in their work task and uses appropriate methods to reduce the risks; 6. responds within the limits of their responsibility in the event of a work accident and has basic first-aid knowledge; 7. gathers waste materials that accumulate throughout the production process for waste management; 8. adapts to the team, works responsibly and reacts promptly to changes in the work process, where required; 9. communicates politely and properly and relays information in a clear and intelligible way. 10. keeps up to date with technological advances; 11. uses a computer at work at the level required by the ECDL base modules 'Computer Essentials', 'Internet Essentials' and the intermediate module 'IT Security' (see Annex 1 'Computer skills');	

12. has English skills for obtaining specialised information at the B1 level according to the module 'Comprehension' (see Annex 2 'Language skills level descriptions');
13. uses digital tools and specialised software according to data privacy requirements and the regulations of the enterprise.
Assessment method(s): Recurring competences are evaluated as part of the assessment of the other competences listed in the occupational qualification standard.

## Part C

### GENERAL INFORMATION AND ANNEXES

<b>C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations</b>	
1. ID of occupational qualification standard in register of occupational qualifications	24-29112017-02/7k
2. Occupational qualification standard compiled by:	Peeter Mõrd, Ensto Ensek AS Pilleriin Laanemets, Eesti Plastitööstuse Liit Siim Jäger, AS Norma Meelis Bergmann, Krimelte OÜ Jaanus Rahuoja, Talent Plastics Tallinn
3. Occupational qualification standard approved by:	Engineering, Manufacturing and Processing
4. No. of decision of Sectoral Council	7
5. Date of decision of Sectoral Council	29.11.2017
6. Occupational qualification standard valid until	15.11.2022
7. Occupational qualification standard version no.	7
8. Reference to International Standard Classification of Occupations (ISCO 08)	8142 Plastic Products Machine Operators
9. Reference to European Qualifications Framework (EQF)	4
<b>C.2 Occupational title in foreign language</b>	
English:	Plastics Machine and Tool Setter, EstQF Level 4
Russian:	Наладчик по переработке пластмасс
<b>C.3 Annexes</b>	
Lisa 1 <a href="#">Computer Skills</a>	
Lisa 2 <a href="#">Language skills level descriptions</a>	