

Packaging Technologist

Competence Profile



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1. Introduction

The packaging profession is developing rapidly because of the many new requirements imposed by legislation, advancing technology, and the internationalisation of the business environment. Packaging Technologists play a key role in integrating these developments within the business. They investigate and map out the technological aspects of product-packaging combinations of individual products or product groups. They come up with ideas for innovative, value-adding improvements. They supply the building blocks for a successful packaging policy for businesses in trade and industry.

To put it briefly:

Packaging Technologists are professionals who are involved in the operational realisation of product-packaging combinations and the solving of product-packaging issues from different disciplines at middle management levels as line executive.

The present document describes the competence profile of the Packaging Technologist, as determined by Stichting NVC Examens in conjunction with the association NVC Netherlands Packaging Centre, NVC Education and Stichting Examenkamer.

The competence profile forms the basis of the Examination Requirements NVC Packaging Professional I. The NVC Packaging Professional I exams are organised by Stichting NVC Examens in accordance with the Regulations and Procedure of Appeals NVC Packaging Professional. Stichting NVC Examens is supervised by Stichting Examenkamer.

2. Goals of the profession; key areas of expertise

The goal of the profession is to actually implement tasks, recommendations, and assignments – independently or under supervision – that are the result of studies and research with the goal of improving packaging and packaging processes and methods and introducing new packaging and/or packaging processes and methods to accomplish the most suitable packaging.

In practice the essential knowledge of the Packaging Technologist has proven to be broad in scope. That is why there are many positions that are or can be held by Packaging Technologists. The key areas of expertise of the Packaging Technologist are described below. Taken collectively, they show what should be put at the centre of the examination of candidates for the NVC Packaging Professional I diploma and of the education of Packaging Technologists.

A Packaging Technologist must be able to name the vulnerabilities of a randomly chosen product and has to possess general knowledge of products and product categories. A candidate should be able to name the most vulnerable components or ingredients of products. A Packaging Technologist can relate this information to the characteristics of packaging materials. In other words, both the product that needs to be packaged and the packaging material (or combination of packaging materials) should be viewed in a functional way.

The Packaging Technologist is also capable of indicating how changes in the product and/or packaging can lead to improvements in the product-packaging combination (in respect of costs, efficiency, environment, computerisation, logistics, safety, quality, branding, legislation and regulations, packaging standards, ease of use, etc.). The role of the choice of dimensions in relation to the amount of packaging material should be clearly understood.

Packages are made from various common packaging materials. Not only is a Packaging Technologist able to functionally discern these materials, but he or she can also describe their associated production processes and identify the technical limitations of these processes. He or she should also have an idea of trends and developments in the market.

A packaged product should be transportable, and there are many options for making products transportable. A Packaging Technologist should know and be able to articulate the requirements that need to be met for transportation with the different transport modalities. Concepts like the collo modular system, GS1-codes, effective consumer response, intelligent tracing and tracking, and customer order decoupling point should be known and are part of the basic knowledge.

Putting all the desired information on the packaging can be done in many ways: printing on the packaging material with different technologies, for example labelling, sleeving, inline printing of packaging, and transfer technologies. These technologies should be known and the candidate should be able to recognise them. He or she should have insight in the quality differences, the possible combinations of packaging material and printing technology, and in developments in this area.

A candidate should be able to describe – in general if not in detail – different types of packaging machines. He or she should be able to name and give general functional descriptions of cartoners, palletisers, various types of filling machines, form fill sealing machines, etc.

In work situations a Packaging Technologist often gets questions from the marketing department. The Packaging Technologist should be able to serve as a conversation partner and have knowledge of basic marketing concepts and terms.

3. Position in the organisation

In the following paragraphs an image is sketched of the position the Packaging Technologist can have in an organisation. Because of the diversity of the entire 'packaging chain' (from retailer to raw material supplier) it is impossible to make a complete image, but the following text should give a clear impression.

3.1 Packaging industry

In the packaging industry a distinction can be made between large companies (more than 1000 employees) and Small and Medium Enterprises (SME).

In an SME a Packaging Technologist can for example work as a line official at medium level, reporting to the board of directors, head of the procurement department, production leader, or head of the laboratory. Examples of positions are: procurement assistant, packaging technologist, logistic worker, product developer, packaging developer, and quality controller.

In large companies an Packaging Technologist can fill in positions like: R&D staff; working in the procurement department or marketing; working in production as technologist or quality controller; working in the logistics department; and working in the planning and control department.

3.2 Packaging supplies industry

In the packaging supplies industry (including suppliers of packaging materials, packaging machines, and auxiliary materials):

In an SME a Packaging Technologist can for example work as line official (medium level) reporting to the board of directors; head of the procurement department; production leader; or head of R&D, production, logistics and warehousing, or planning and control department.

In large companies an Packaging Technologist can work in customer service, marketing, sales, product development, or logistics and warehousing.

3.3 Research organisations and the like

In research organisations a Packaging Technologist can work as researcher or lecturer reporting to the board of directors, head of research, or unit leader.

3.4 Business services

When working in business services a Packaging Technologist can be an advisor (design, logistics, transport and distribution, etc.); support officer or policy officer reporting to a head of department; unit leader; cluster coordinator; head of design; product manager, or project manager, or work as an independent advisor.

4. Some aspects of the position

In order to properly fulfil the position of Packaging Technologist the following factors are of importance:

- Experience in a company where the packaging profession is applied.
- Intermediate vocational education level and/or work experience or comparable.
- Ability to think technically.
- Good oral and written communication skills.
- Good social skills.
- Able to work mainly independently on assignments under supervision of a Packaging Manager or other assigned superior.
- Basic understanding and active up-to-date knowledge of developments in the packaging discipline, especially concerning legislation, rules, and standards.
- Ability to take responsibility.

5. Tasks

This is an overview of tasks and skills, responsibilities, and competences that can be part of the position of a Packaging Technologist

Tasks and skills:

- Mastery of the terminology of the world of packaging.
- Ability to help solve all possible product-packaging problems at middle management level in a co-directive or co-executive way.
- Cooperating in work on quality management systems like ISO and HACCP.
- Setting up functional and technical specifications for packaging.
- Making calculations on suitable packaging materials or packages for specific applications.
- Co-executing saving and/or improvement projects.
- Co-executing and reporting on packaging projects and help solve bottlenecks in these projects.
- Co-assessing the suitability of packaging machines and equipment.
- Helping calculate cost price and sales price.
- Advise on the procurement of project-bound materials and/or machines.
- Management of packaging materials and means.
- Ability to assess when legal aspects should be taken into account.

Responsibilities:

- Keeping knowledge and documentation of the packaging discipline up-to-date – both internally and externally – as on packaging forms, packaging materials and packaging machines, rules and regulations, standards, and new developments.
- Searching continuously for opportunities to apply acquired knowledge and methods in the work environment in order to improve quality or save costs in the field of product-packaging combinations.

Competences:

- Researching possible solutions for a given product-packaging problem.
- Independently executing analyses and/or calculations in order to make improvements in the qualitative or quantitative packaging aspects concerning a product-packaging combination.
- Discussing proposals for changes in the packaging with suppliers.
- Having tests and/or measurements executed in order to support decisions for technological solutions within budgetary boundaries.

6. Additional information

The Examination Requirements for NVC Packaging Professional I are based on the present Competence Profile Packaging Technologist. The Final Attainment Levels and Examination Requirements NVC Packaging Professional I can be obtained from Stichting NVC Examens, PO Box 164, 2800 AD, Gouda, the Netherlands.

The Regulation and Appeals procedure for the exams for NVC Packaging Professional are provided in the Regulations and Procedure of Appeals NVC Packaging Professional. This publication can be obtained from Stichting NVC Examens, PO Box 164, 2800 AD, Gouda, the Netherlands.

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