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CERTIFICATE SUPPLEMENT (*)

Austria

1. TITLE OF THE CERTIFICATE (DE) (1)

Lehrabschlussprüfungszeugnis Oberflächentechnik – Schwerpunkt Feuerverzinkung

(1) in original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN) (2)

Certificate of Apprenticeship 'Surface Engineering Specialising in Hot-Dip Galvanising' (f/m)

(2) This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCES

Specialist areas of competence:

Competence area coating processes (all focuses):

The professional for surface engineering carries out a wide range of activities for the surface treatment and coating of materials such as metals, plastics, wood/MDF and composites. He/she has extensive knowledge of the properties, areas of application and performance of various surface engineering methods, in particular mechanical surface engineering, electroplating, powder coating, enamelling, hot-dip galvanising and thin layer and plasma engineering.
During the incoming goods inspection, the professional assesses the received workpieces, associated order documents and technical drawings. Any deviations or incorrect information shall be identified, documented and communicated by the professional.
The professional for surface engineering selects suitable methods for surface coating depending on the subsequent requirements such as weather, standard, load and customer specifications and prepares the associated materials, tools, machines and equipment. He/she carries out the necessary preparatory steps for coating workpieces, such as chemical and mechanical surface pre-treatment, in accordance with the subsequent coating method and the respective substrate material. In doing so, he/she handles toxic and hazardous substances in compliance with legal and company safety regulations.
When defects or complaints occur, the professional reworks finished products, decoats them and recoats them. He/she prepares finished workpieces for transport, packs them according to customer requirements, picks them according to the order and loads them efficiently and safely into different means of transport. For quality assurance and product traceability, he/she documents all necessary information, such as procedures, tests and test intervals, in a comprehensible manner according to the company's specifications. In addition, the professional carries out standardised sampling for different test methods as well as specified physico-chemical analyses.
Based on his/her specialist knowledge, the professional for surface engineering informs customers about the surface coating methods offered and goes into detail about the surface properties to be achieved, such as adhesion and corrosion resistance. When carrying out work, he/she takes into account relevant legal provisions and technical guidelines, especially for the management, storage and handling of toxic and hazardous substances.

Special-focus professional competence area hot-dip galvanising:

The professional for surface engineering specialising in hot-dip galvanising coats workpieces to achieve desired surface properties and suggests suitable processes for this purpose. Based on his/her in-depth knowledge of hot-dip galvanising, he/she recognises whether workpieces are suitable for the selected coating technique and designed accordingly. If necessary, he/she reports the identified problems, takes appropriate measures for the design of hot-dip galvanised workpieces and advises customers on the design of hot-dip galvanised workpieces. As part of the production process, the professional (wet) chemically pre-treats workpieces and prepares them for coating. The professional for surface engineering specialising in hot-dip galvanising determines the composition of the molten zinc, sets it and adjusts it, especially with regard to the alloy composition. He/she coats workpieces by means of hot-dip galvanising using processes such as high- or low-temperature, hot-dip zinc coating, centrifugal or strip galvanising, taking into account the influence of hard zinc and zinc ash. In this way, the professional creates different layers and optimises them. He/she then retreats hot-dip galvanised workpieces in compliance with the relevant standards.
The professional selects machines or systems for hot-dip galvanising, taking into account logistical requirements, ensures that they are ready for operation and sets them up. To do this, he/she equips traverses or devices, for instance, and adapts them to the requirements of the workpiece if necessary. The professional for surface

engineering specialising in hot-dip galvanising specifies different parameters and operates the machines or systems safely and properly. For this purpose, he/she controls the work processes of machines or systems for hot-dip galvanising and their pre-treatment. The professional ensures the quality of the hot-dip galvanised coating, monitors the coating process, in particular the hazardous situation at the zinc kettle and immediately reports any malfunctions of the zinc kettle. He/she also carries out anticipatory maintenance work on the machines and equipment he/she uses.
The professional for surface engineering specialising in hot-dip galvanising selects suitable procedures for testing hot-dip galvanised surfaces. He/she carries out various test procedures, such as visual inspections and coating thickness measurements, and documents the results in a professional and standardised manner. He/she also assesses hot-dip galvanised surfaces, identifies defects, draws conclusions about their origin and supports the optimisation of the manufacturing process.

Interdisciplinary areas of competence:

1. Working in an operational and professional environment
2. Quality oriented, safe and sustainable work
3. Digital work

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE (3)

Range of occupations:
Employment in workshops and production halls of commercial and industrial enterprises for coating metals and metal parts such as pipes, rods and other iron and steel components with liquid zinc by heating the workpieces, subsequently immersing them in the galvanising kettle and post-treatment methods of the workpieces (such as cleaning, etching, rinsing, etc.).

(3) if applicable

(*) **Explanatory note**
This document has been developed with a view to providing additional information on individual certificates; it has no legal effect in its own right. These explanatory notes refer to the Decision (EU) no. 2018/646 of the European parliament and the Council of 2 May 2018 on a common framework for the provision of better services for skills and qualifications (Europass).
More information on Europass is available at: http://europass.cedefop.europa.eu or www.europass.at

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate	**Name and status of the national/regional authority providing accreditation/recognition of the certificate**
Lehrlingsstelle der Wirtschaftskammer (Apprenticeship Office of the Economic Chamber; for the address, see certificate)	Bundesministerium für Wirtschaft, Energie und Tourismus (Federal Ministry of Economy, Energy and Tourism)
Level of the certificate (national or international) NQF/EQF 4 ISCED 35	**Grading scale / Pass requirements** Overall performance: Pass with Distinction Good Pass Pass Fail
Access to next level of education/training Access to the *Berufsreifeprüfung* (i.e. certificate providing university access for skilled workers) or a vocational college for people under employment. Access to relevant courses at a *Fachhochschule* (i.e. university level study programme of at least three years' duration with vocational-technical orientation); additional examinations must be taken if the educational objective of the respective course requires it.	**International agreements** Between Germany, Hungary, South Tyrol and Austria, international agreements on the mutual automatic recognition of apprenticeship-leave examinations and other vocational qualifications have been concluded. Information on equivalent apprenticeship occupations can be obtained from the Federal Ministry of Economy, Energy and Tourism.
Legal basis	

1. Training Regulation for surface engineering BGBl. II (Federal Law Gazette) No. 99/2022 (company-based training)
2. Curriculum framework (education at the vocational school for apprentices)
3. The present apprenticeship trade replaces the apprenticeship trade surface engineering (Training and Examination Regulation BGBl. II (Federal Law Gazette) No. 192/2000 as amended by BGBl. II (Federal Law Gazette) No. 177/2005), which expired as of April 30, 2022.

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training in the framework of the given Training Regulation for surface engineering and of the curriculum of the vocational school for apprentices. Admission to the final apprenticeship examination upon completion of the apprenticeship period specified for the apprenticeship trade concerned. The final apprenticeship examination aims to establish whether the apprentice has acquired the skills and competences required for the respective apprenticeship trade and is able to carry out the activities particular to the learned trade herself/himself in an appropriate manner.
2. Admission to the final apprenticeship examination in accordance with Article 23 (5) of the *Berufsausbildungsgesetz* (Vocational Training Act). An applicant for an examination is entitled to sit the final apprenticeship examination without completing a formal apprenticeship training if she/he has reached 18 years of age and is able to prove acquisition of the required skills and competences by means of a relevant practical or an on-the-job training activity of appropriate length, by attending relevant courses etc.

Additional information:

Entry requirements: successful completion of 9 years of compulsory schooling.

Duration of training: 3.5 years.

Enterprise-based training: Enterprise-based training comprises $^{4}/_{5}$ of the entire duration of the training and focuses on the provision of job-specific skills and competences according to Article 3 (2) of the Training Regulation, BGBl. II (Federal Law Gazette) No. 99/2022, enabling the apprentice to exercise qualified activities as defined by the profile of skills and competences specified above (cf. job profile).

Education at vocational school: School-based education comprises $^{1}/_{5}$ of the entire duration of the training. The vocational school for apprentices has the tasks of imparting to apprentices the basic theoretical knowledge, of supplementing their enterprise-based training and of widening their general education in the framework of subject-oriented part-time instruction.

More information (including a description of the national qualification system) is available at:
www.zeugnisinfo.at and www.edusystem.at

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